

Ideological Clarity in Multi-Party Competition: A New Measure and Test Using Election Manifestos

Supplemental Online Appendix

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Appendix A. Data Generating Process of Manifestos with Different Audiences

Scenario	Manifesto	Explanation
01. A is issue-by-issue median	$T_{A1} + T_{A2}$	A's position on both issues enters the manifesto (dimension by dimension median).
02. B is issue-by-issue median	$T_{B1} + T_{B2}$	B's position on both issues enters the manifesto.
03. Logroll AB	$T_{A1} + T_{B2}$	A's policy on 1st issue, B's policy on 2nd issue
04. Logroll BA	$T_{B1} + T_{A2}$	B's policy on 1st issue, A's policy on 2nd issue
05. Compromise	$\alpha(T_{A1} + T_{B1}) + \beta(T_{A2} + T_{B2})$	Policy compromise on pareto line, where $0 < \alpha, \beta < 1$
06. Partial compromise ABA	$T_{A1} + T_{B1} + T_{A2}$	Inclusion of both statements on 1st issue, A's positions on 2nd issue.
07. Partial compromise ABB	$T_{A1} + T_{B1} + T_{B2}$	Inclusion of both statements on 1st issue, B's positions on 2nd issue.
08. Partial compromise AAB	$T_{A1} + T_{A2} + T_{B2}$	Inclusion of both statements on 2nd issue, A's positions on 1st issue.
09. Partial compromise BAB	$T_{B1} + T_{A2} + T_{B2}$	Inclusion of both statements on 2nd issue, B's positions on 1st issue.
10. No compromise ABAB	$T_{A1} + T_{A2} + T_{B1} + T_{B2}$	Inclusion of all statements on both issue.
11. Silent disagreement AB—	$T_{A1} + T_{B1}$	Inclusion of both positions on 1st issue, silence on 2nd issue.
12. Silent disagreement —AB	$T_{A2} + T_{B2}$	Inclusion of both positions on 2nd issue, silence on 1st issue.
13. Silent disagreement, compromise	$\alpha T_{A1} + (1 - \alpha)T_{B1}$	Compromise position on 1st issue., silence on 2nd issue.
14. Silent disagreement, compromise	$\alpha T_{A2} + (1 - \alpha)T_{B2}$	Compromise position on 2nd issue, silence on 1st issue.
15. Silent disagreement, A dominant	T_{A1}	A's position on 1st issue, silence on 2nd issue.
16. Silent disagreement, A dominant	T_{A2}	A's position 2nd issue, silence on 1st issue.
17. Silent disagreement, B dominant	T_{B1}	B's position on 1st issue, silence on 2nd issue.
18. Silent disagreement, B dominant	T_{B2}	B's position 2nd issue, silence on 1st issue.

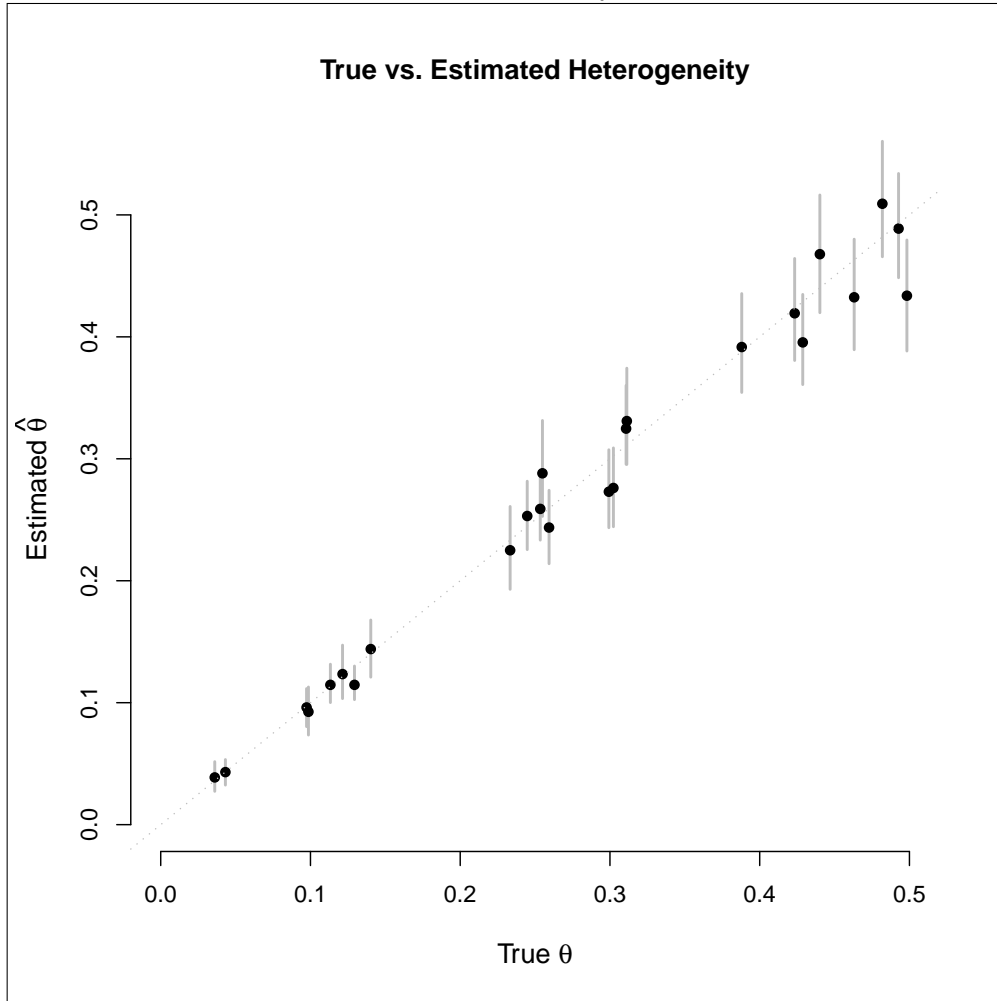
Appendix B. Monte Carlo Simulation

This section describes in more detail the results of the Monte Carlo simulation. To test the ability of our estimator to correctly estimate our parameters of interest, we simulate a term-document matrix of $P = 25$ manifestos and $J = 1,000$ words consistent with a negative binomial data generating mechanism outlined above. We draw our true parameter values from the following distributions: $\alpha \sim U(0.6, 1.2)$, $\beta \sim U(0.6, 2.1)$, $\psi \sim U(0.6, 1.2)$, $\omega \sim U(0.1, 1.6)$, and $\theta = \frac{1}{r} \sim U(0.02, 0.5)$. Using the true values of our parameter, we calculate λ for each word-document cell in our matrix and then draw from the negative binomial distribution using the value of the document overdispersion. Estimates shown are are posterior means of 5,000 draws after a burn-in of 1,000 iterations.

Our main parameters of interest are the manifesto positions ω_{it} and the manifesto clarity (overdispersion) parameter θ_{it} . The estimated positions correlate strongly with the true values at $r = 0.996$, suggesting that we recover the true spatial configuration of the parties accurately. We obtain a Kendall's τ_c rank order correlation of 0.433. We examine recovery of the overdispersion parameters by plotting the true θ against the recovered values with 95 percent Bayesian confidence intervals (see Figure below). Our results suggest that even with limited data, recovery of θ is quite good, with the 95 percent confidence intervals covering the true parameter in 24 out of 25 documents. Our results also suggest that as the true value of θ increases, our estimation uncertainty also increases. More specifically, the mean standard error of $\hat{\theta}$ is $\sigma_{\hat{\theta}} = 0.009$ in our simulation when the true $\theta < 0.2$, but increases to $\sigma_{\hat{\theta}} = 0.022$ for $\theta > 0.33$. Note that while we can use Bayesian confidence intervals to check for correct coverage of our clarity parameter, comparing point estimates against one another visually is not possible because the estimates are not independent. However, such comparisons can be made with the complete samples, which are available upon request.

Substantively, we focus on the differences in θ across party manifestos, so testing our ability to distinguish between different values of $\hat{\theta}$ is of particular importance. We are especially concerned with our probability of committing Type 1 errors, where the null hypothesis is incorrectly rejected when it is true. This is especially problematic in light of problems introduced by multiple pairwise tests, leading to familywise error rates that would normally exceed a naively specified value of α (Hochberg and Tamhane 1987). We examine this issue by generating a term-document matrix from the same distribution of parameters as before, but fix $\theta = 0.33$ for all $P = 25$ documents. Note that this allows us to test differences in r across $\binom{25}{2} = 300$ different document pairings in a situation where no real difference in r exists. This is effectively Tukey's Honestly Significant Difference test in ANOVA, excluding any corrections for experiment-wide error rates. Testing differences across estimates of θ at the $\alpha = 0.05$ level of significance, we find that 6 per cent of our 300 pairings produce differences in θ that are statistically significant. Familywise error rates introduced by multiple comparisons therefore do not appear to be substantively much larger than what we would expect from naively pre-specified levels of α .

True vs. Recovered Clarity Parameter



Appendix C: Party Manifesto Statements used for Simulation

1. Jobs / Employment

- Left: “Workers have suffered too much with their lost jobs and low unemployment benefits. Creating skilled jobs, getting workers off unemployment, and creating a job recovery should be the government’s top priorities. The government will work towards reducing unemployment by creating millions of skilled jobs for British workers over the next decade. Government must ensure that skilled jobs stay in Britain and that workers will not be unemployed and on unemployment benefits. Unemployed workers should receive full benefits and the government should help workers seek new employment and acquire new skills. Government should recover losses from any company that puts workers’ employment at risk and prevents recovery. Only these policies will contribute to the recovery of the economy, create skilled jobs, create more employment and reduce the unemployment rate, and prevent future job loss. Government should simplify unemployment benefits and should allow unemployed workers to get into skilled jobs and progress in their life. We are confident that we will see a swift recovery, return to full employment, with more chances for workers to get on at their jobs. Transforming our country into a sustainable green economy will create more jobs for skilled workers. The job guarantees will put an end to long-term unemployment and a life on unemployment benefits. Our policy is to keep skilled jobs in Britain. As the economy recovers, we want to see more employment and higher wages for Britain’s workers.”
- Right: “Government should foster growth by helping private business and industry generate wealth. Private businesses and industries drive innovation to produce growth and wealth. Economic growth led by private business and industry is the key to innovation, wealth, and success. The government should privatize industries and businesses to generate wealth and grow the economy. Private industry and business are better than the state at generating growth, sparking innovation, and creating wealth. Business and industry are the key to robust economic growth, which lead to a wealthy society. The government should not interfere with private business as this hampers growth and innovation. Private industry is the key to a healthy, innovative, and growing economy. Industry must be allowed to innovate to bring generate new wealth throughout the economy. Without private businesses and industry, innovation would stagnate. Private industry and business will lay the framework for future economic growth and innovation. Innovation, sparked by private industry, generates wealth. Today’s private industry and business generate wealth and growth for future generations.”
- Center: “Workers have suffered too much with their lost jobs and low unemployment benefits. Creating skilled jobs, getting workers off unemployment, and creating a job recovery should be the governments top priorities. The government will work towards reducing unemployment by creating millions of skilled jobs for British workers over the next decade. Government must ensure that skilled jobs stay in Britain and that workers will not be unemployed and on unemployment benefits. Unemployed workers should receive full benefits and the government should help workers seek new employment and acquire new skills. Government should recover losses from any company that puts workers’ employment at risk and prevents recovery. Government should foster growth by helping private business and industry generate wealth. Private businesses and industries drive innovation to produce growth and wealth. Economic growth led by private business and industry is the key to innovation, wealth, and success. The government should privatize industries and businesses to generate wealth and grow the economy. Private industry and business are better than the state at generating growth, sparking innovation, and creating wealth.”

2. Taxes / Spending

- Left: “In times of crisis, government needs to be creative. Nationalising some companies, at least for a short time, can be good for the economy. We need to redistribute from top to bottom. Everybody needs to get a fair and equal share of wealth in our country. Government should nationalise companies to pump money into the economy and to promote fairness and equality. In times of economic stagnation, increased spending is needed to ensure stability. The government has increased spending to

nationalise banks to save the economy, and will continue to nationalise companies as needed to create a fair and equal economy. Nationalisation ensures fairness and equality. Nationalising companies requires increased government spending, but without increased spending, it will be impossible to fairly and equally redistribute money to the neediest citizens. Nationalisation will help the government meet its goal of a more fair and equitable distribution of resources among the population. Without redistribution, it is impossible to achieve a fair and equitable economy. Increased spending is required to provide equal and fair access to government services.”

- Right: “We believe in giving more power to individuals. Empowering individuals means giving individuals more responsibility. Government can act responsibly by reducing both individual tax and corporate tax rates to help sustain the economy. More government money in the economy leads to higher inflation. Keeping prices and inflation down and reducing the deficit should be the government’s top priority. Government must demonstrate fiscal responsibility, tackle the budget deficit, prevent rising inflation, all while reducing taxes. It is possible to both reduce corporate tax rates and individual tax rates, while stabilizing inflation and tackling the deficit. Reducing the deficit and taming inflation, in addition to reducing individual and corporate taxes is the most responsible course of action for the government to take. The government must promote fiscal responsibility by controlling inflation and reducing the deficit, while leaving tax rates untouched. Without reducing taxes, the fiscal burden borne by corporations and individuals is too high. Just as individuals must be responsible in their finances, the government must demonstrate responsibility by reducing the deficit without increasing individual or corporate taxes. Corporations and individuals already contribute a great deal to the economy. They should not be taxed further to solve the deficit problem. Their taxes should be reduced.”
- Center: “Nationalisation ensures fairness and equality. Nationalising companies requires increased government spending, but without increased spending, it will be impossible to fairly and equally redistribute money to the neediest citizens. Nationalisation will help the government meet its goal of a more fair and equitable distribution of resources among the population. Without redistribution, it is impossible to achieve a fair and equitable economy. Increased spending is required to provide equal and fair access to government services. Reducing the deficit and taming inflation, in addition to reducing individual and corporate taxes is the most responsible course of action for the government to take. The government must promote fiscal responsibility by controlling inflation and reducing the deficit, while leaving tax rates untouched. Without reducing taxes, the fiscal burden borne by corporations and individuals is too high. Just as individuals must be responsible in their finances, the government must demonstrate responsibility by reducing the deficit without increasing individual or corporate taxes. Corporations and individuals already contribute a great deal to the economy. They should not be taxed further to solve the deficit problem. Their taxes should be reduced.”

3. Environment

- Left: “We cannot sustain an economy without paying closer attention at our natural environment. Our environmental standards have been too low, we need to do more to make a transition towards a green and sustainable economy that at the same time protects natural environment through strict regulations. Green action on environmental protection, sustainable economy, more environmental regulation is at the heart of policy-making. Government should commit to protecting and enhancing our natural environment by regulating pollution, creating green standards, and focusing on sustainable practices. Without a focus on sustainable practices, it will be impossible to protect our natural environment. Government should create protected natural areas, develop green standards, and consider sustainable practices when writing regulations. Government must promote sustainable practices by establishing green regulations and standards. Government must introduce more environmental regulations to take charge of environmental sustainability and to protect the natural environment. Sustainability is not possible without government regulation and green standards. To protect the natural environment, government must ensure that tougher green standards and regulations are met in both the public and private sectors. Investment in green technology can help create sustainable jobs and protect the natural environment. Government should also support more regulation and protection of wildlife.

Finally, we need more research on environmental protection and new ways for a sustainable, green economy.”

- Right: “Conserving our tradition means understanding the importance of conservation. The conservation of our lands is a priority but it should not hurt the economic development. This means less red tape and bureaucracy. Businesses and individuals should take responsibility to conserve the environment while eliminating the bureaucratic red tape that traditionally has hampered land development. Land conservation is necessary to ensure that space is available for traditional outdoor activities, including hunting and fishing. It is possible to achieve land conservation without bureaucratic red tape. Government should introduce a plan that enables neighbourhoods to specify what kind of land development and conservation plans they want to see in their area without creating additional bureaucratic red tape. Land conservation should aim to set aside space for traditional activities such as hunting and fishing. Government intervention in the environment generates bureaucratic red tape that hampers land development and undermines traditional practices. Traditional uses of land such as farming, hunting, and fishing, must be preserved. Land development should not become mired in bureaucratic red tape. Land conservation policy should conserve land for farming, hunting, and fishing. Bureaucratic red tape should not prevent development. Land conservation is possible without bureaucratic red tape. Hunting is part of our tradition and culture, and our conservation policies should seek to conserve tradition as well as land.”
- Center: “Government should create protected natural areas, develop green standards, and consider sustainable practices when writing regulations. Government must promote sustainable practices by establishing green regulations and standards. Government must introduce more environmental regulations to take charge of environmental sustainability and to protect the natural environment. Sustainability is not possible without government regulation and green standards. To protect the natural environment, government must ensure that tougher green standards and regulations are met in both the public and private sectors. Investment in green technology can help create sustainable jobs and protect the natural environment. Government should also support more regulation and protection of wildlife. Finally, we need more research on environmental protection and new ways for a sustainable, green economy. Government intervention in the environment generates bureaucratic red tape that hampers land development and undermines traditional practices. Traditional uses of land such as farming, hunting, and fishing, must be preserved. Land development should not become mired in bureaucratic red tape. Land conservation policy should conserve land for farming, hunting, and fishing. Bureaucratic red tape should not prevent development. Land conservation is possible without bureaucratic red tape. Hunting is part of our tradition and culture, and our conservation policies should seek to conserve tradition as well as land.”

4. Global Warming

- Left: “Global warming is here. Global warming is a threat and requires ambitious carbon emission cuts to prevent melting of polar ice. This requires ambitious global cooperation. We have established an ambitious low carbon policy to reduce global warming by controlling greenhouse gas emissions and encouraging use of emission free vehicles. We must act quickly to prevent global warming by reducing carbon emissions. Preventing global warming through ambitious programs to cut carbon emissions is necessary to protect the polar regions. Melting polar icecaps endanger wildlife, such as polar bears and other vulnerable species. Ambitious low carbon emissions policies are required to put an end global warming. Unless we reduce our carbon output, by reducing emissions from cars and factories, global warming will continue to threaten the polar regions. Melting polar icecaps threaten to raise sea levels, endangering coastal communities and wildlife. Ambitious low carbon policies are needed to prevent global warming from endangering vulnerable species such as polar bears. Individuals and industry must embrace controls on carbon output in order to reverse the trends in global warming. Ambitious low carbon cutting policies are needed to reduce the effects of emissions on the planet. Being ambitious now may reduce global emissions and lead to a transition of an economy free of harmful carbon use.”
- Right: “These are uncertain times. Government must fund research to scientifically investigate the still uncertain causes of climate change. More scientific research is needed to determine whether our

planet's climate is, indeed, changing as the result of human activity. Pollution may cause climate change, but scientific research on this is uncertain. Our government will not implement ineffective policies aimed at reducing climate change when we are uncertain whether it is caused by human activity. We will remain uncertain about the causes and degree of climate change without more scientific research. Government policies regarding climate change will be ineffective unless it is based on sound scientific research aimed at reducing uncertainty and uncovering the root causes of climate change. Ineffective policies aimed at ending climate change cause a waste of taxpayer money. We will not spend money on ineffective policies regarding the changing climate, especially those unsubstantiated by scientific research. Scientific research has yet to produce a definitive answer regarding the relationship between human activity and the causes of climate change. Climate change may be occurring but we are uncertain of its causes. Until scientific research fully explores the causes of climate change, attempts to implement policies to end climate change will be ineffective."

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5. Energy

- Left: "The transformation to a clean, alternative energy supply including renewable energies such as wind and solar power is an investment into the future. Government must thus invest now in alternative, renewable, and clean sources of energy. We need to increase energy from renewables like wind and solar by a lot. This includes solar, wind and geothermal power. By tapping alternative, renewable energy sources (e.g. wind, solar and geothermal power) the government will invest in the future of our country by providing new sources of clean energy. Wind, solar, and geothermal energy are renewable, alternative energy sources for cleanly powering and heating our homes and buildings. Investing in renewable, alternative energy - such as wind and solar power - is an essential investment in the future of our country. Investment in clean sources of renewable energy will help ensure we have a clean air to breathe in the future, and will ensure a clean environment. Greater investment in clean, renewable energy sources will reduce the cost of alternative energy from wind and solar power. Clean, renewable energy is not cheap. But it is an investment for the country without alternative."
- Right: "We must continue to search for new sources of energy to reduce our dependence on foreign oil and gas, while trying to maintain price stability. We must look for other sources of power such as nuclear energy, nuclear fusion, and coal that we can produce at home. For the meantime, conventional coal and clean coal power is needed. This is true for our use of oil and natural gas. Nuclear power is dependable and cheap and keeps energy prices down. Nuclear fusion comes at a price, but holds great potential. Our dependence on oil and gas will make it very difficult to wean our nation off of foreign sources of oil without seeing drastic price increases. Government must consider all possible energy sources including coal, nuclear power and nuclear fusion, oil and gas, in an effort to keep energy prices affordable. As the price of oil and gas continues to rise, energy sources such as nuclear and coal become more attractive. We need to subsidize national energy production of nuclear energy that can reduce our dependence on oil and gas and create stable prices. Nuclear fusion may one day solve our energy demands at low prices and do away with our dependence on oil, gas, and coal for good. At the same time, we need to pay the price for keeping nuclear power stations safe."

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6. Defense

- Left: “Peace is at the heart of our defense policy. Peace can only be achieved by operating through multilateral channels, such as the UNO, and by concluding international treaties in close cooperation with our allies. It is our declared goal to operate through multilateral institutions such as the UNO to promote peace. Multilateral treaties can contribute to more disarmament than ever before, getting rid of some of the most dangerous weapons. A new round of multilateral disarmament talks is necessary to work towards peace. We must increase multilateral involvement with our allies in the UNO, and lead the effort to create new multilateral UNO treaties in order to promote global peace through disarmament. Disarmament of the most dangerous weapons is essential to preserve long-lasting peace. Peace can only happen through the multilateral institutions of the UNO working towards disarmament. By working with our allies through the multilateral channels of the UNO, we can replace our troops operating globally with UNO peacekeepers. We are for more multilateral action in the UNO security council. To defend our country, we must seek to work with our allies through multilateral treaties and organizations, like the UNO, to secure peace. Through multilateral forums such as the UNO, we can pursue goals such as disarmament and peace. We need to do more for our veterans who fought so hard to preserve peace. Our allies have shown how to remunerate veterans and we need to do the same here. Veterans do a great service to this country. The sacrifices made by our veterans to ensure peace cannot go unrecognized. Veterans deserve our greatest respect. We must support our veterans.”
- Right: “We have huge regard for our soliders and their contribution to our national defense. To defend our national interests, we must defend ourselves against terrorist threats. We must do everything we can to deter terrorist attacks. We must defend ourselves against the terrorists; the Terrorists cannot win. We must develop strong national defenses to deter our enemies. The threat of a terrorist attack against our nation is high. We must develop adequate defenses against such attacks. The deterrent effect of our national defense forces with its many soldiers should be strengthened. Terrorist attacks are stopped by a strong national defense and soldiers who do their job when it is most needed. Government must take the terrorist threat more seriously than ever before. We need to make the national defense forces more attractive for new soldiers. Soldiers protect and defend our nation. Being a soldier is a national duty. Soldiers should be paid better and have better career possibilities than before. We cannot and will not abandon our soldiers, who defend this nation. Support for our soldiers is necessary to ensure the defense of our nation and national interests against the threat of terrorist attacks. Terrorist attacks represent the greatest threat to our way of life today.”
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nation. Being a soldier is a national duty. Soldiers should be paid better and have better career possibilities than before. We cannot and will not abandon our soldiers, who defend this nation. Support for our soldiers is necessary to ensure the defense of our nation and national interests against the threat of terrorist attacks. Terrorist attacks represent the greatest threat to our way of life today.”

7. European Union and Euro

- Left: “Support for deeper European integration and more European trade should be a cornerstone of British foreign policy. Support for the Euro and the European constitution are key for trade promotion across the continent. Britain should pursue deeper integration through the European Union by joining the Euro. Deeper European integration promotes democracy and stability across Europe by increasing trade ties among member states. Deeper European integration will lead to increased trade with continental Europe. The government should support efforts to strengthen supranational actors and implement the EU constitution. This will create deeper integration. The government should look into adopting the Euro as soon as possible. It is in the long term interest to be part of the Euro. By joining the Euro and supporting a new European constitution, the government will promote both trade and deeper cooperation with Europe. The Euro and the constitution are important symbols of European integration. European countries are the most important trading partners.”
- Right: “Britain must protect its independence and sovereignty and should not cede authority to Brussels without a referendum. We will veto any attempts to give Brussels more power. Britain should keep the pound. Any decision to drop the pound must be put to a referendum. The government must protect its independence and sovereignty by maintaining its right to veto any important policies decided in Brussels. The government must maintain a veto over sensitive issues and should reserve the right to withdraw from policy areas when Brussels pushes policy too far. Brussels cannot be allowed to threaten our sovereignty and independence. Britain should keep the pound and put to a referendum any further transfer of authority to Brussels. The British people must have a veto over the decision to give up the pound. The pound is a key symbol of our sovereignty and independence. Brussels will not be allowed to take the pound away from us. A referendum must be held on any decision to drop the pound. Brussels cannot be allowed to impose laws on the British citizens against their will. The government must retain the ability to veto policy from Brussels. Without the ability to veto policy made in Brussels, the British government has effectively ceded sovereignty to Brussels.”
- Center: “Support for deeper European integration and more European trade should be a cornerstone of British foreign policy. Support for the Euro and the European constitution are key for trade promotion across the continent. Britain should pursue deeper integration through the European Union by joining the Euro. Deeper European integration promotes democracy and stability across Europe by increasing trade ties among member states. Deeper European integration will lead to increased trade with continental Europe. A referendum must be held on any decision to drop the pound. Brussels cannot be allowed to impose laws on the British citizens against their will. The government must retain the ability to veto policy from Brussels. Without the ability to veto policy made in Brussels, the British government has effectively ceded sovereignty to Brussels.”

8. Immigration

- Left: “Minorities without citizenship face some of the hardest challenges in our country. Our goal, however, is a multicultural society where minorities feel like every other citizen. The government must offer migrants who come to our country a legitimate chance at asylum and citizenship. Government policies must promote multicultural awareness and minority rights. Minority groups and migrants contribute to our multicultural heritage. The responsibility of government is not just to its own population, but to those migrants who are on a path to citizenship. Migrants from other continents who seek asylum must be given opportunities in our multicultural society. Migrants who are successful asylum seekers need to receive citizenship. In a multicultural society, migrant and minority rights must be protected. We have a multicultural outlook on society. Minorities and migrants are key to our multicultural society. Minorities offer new and different perspectives and points of view. Migrants and minorities are part of our multicultural heritage. A clear path to citizenship is needed to protect

the rights of asylum seekers. Asylum seekers must be protected. Asylum seekers need a direct path to citizenship. Multiculturalism is an important part of our society.”

- Right: “The government must regain control of our borders, make sure that immigrants assimilate to our customs, and place limits on visas. Immigrants to Britain from elsewhere must learn our language and assimilate into British culture. Too often immigrants abuse the rights and privileges granted to them. There is a limit how much the country can take. We must place limits on the number of visas issued to immigrants, and work to secure our borders. Refusing to set visa limits on new immigrants is irresponsible policy. Within our borders, immigrants must speak our language. We cannot continue to hand out visas to immigrants who do not learn our language, do not assimilate, and who abuse our visa system. Limits on the number of immigrant visas are necessary to protect our society, and language requirement should be part of the visa system. Immigrants who assimilate into our culture are welcome, but we must not allow immigrants to abuse the system and cross the border. To contribute to our society, immigrants must learn our language and assimilate into our culture. Increased border controls are necessary to eliminate abuse of the visa system. We must not allow immigrants to cross our border illegally.”
- Center: “Minorities without citizenship face some of the hardest challenges in our country. Our goal, however, is a multicultural society where minorities feel like every other citizen. The government must offer migrants who come to our country a legitimate chance at asylum and citizenship. Government policies must promote multicultural awareness and minority rights. Minority groups and migrants contribute to our multicultural heritage. The responsibility of government is not just to its own population, but to those migrants who are on a path to citizenship. Migrants from other continents who seek asylum must be given opportunities in our multicultural society. Limits on the number of immigrant visas are necessary to protect our society, and language requirement should be part of the visa system. Immigrants who assimilate into our culture are welcome, but we must not allow immigrants to abuse the system and cross the border. To contribute to our society, immigrants must learn our language and assimilate into our culture. Increased border controls are necessary to eliminate abuse of the visa system.”

9. Public Health

- Left: “The government must guarantee public access to affordable healthcare through the NHS. Patients must have access to the affordable public healthcare that only the NHS can provide. The NHS and its staff, in particular its nurses, provide a valuable public service to patients. Access to affordable public healthcare through the NHS must remain the cornerstone of government healthcare policy. Patients must come first in the government’s healthcare policy. The NHS has many committed nurses, dedicated to patient care. NHS nurses must be paid a decent wage. Nurses earning a decent wage can focus on patient care and provide a better public service. Public access to professional nurses is an integral part of affordable healthcare. The NHS is committed to providing affordable public healthcare, which all citizens can access. The government must support the NHS in its pursuit to provide access to affordable public healthcare.”
- Right: “Money in the health care system is wasted. People need to have a choice again to get the best doctors and the most effective medicine. We must reform our healthcare system to avoid waste, lower costs, and provide individuals with greater choice. Under our current system, doctors waste too much time on with red tape and cannot spend enough time practicing medicine. We will reform the system and transfer resources to support doctors and improve medicine. Reform is necessary to increase choice within the healthcare system. Doctors must be free to practice medicine as they see fit without worrying about wasteful government programs. Patients must be given a choice of doctors they are able to visit. The government must make an effort to keep the cost of healthcare under control without limiting patient choice. Reforms must reduce waste and excess costs, while giving doctors the freedom to practice medicine as they see fit.”
- Center: “The government must guarantee public access to affordable healthcare through the NHS. Patients must have access to the affordable public healthcare that only the NHS can provide. The NHS and its staff, in particular its nurses, provide a valuable public service to patients. Access to

affordable public healthcare through the NHS must remain the cornerstone of government healthcare policy. Patients must come first in the government's healthcare policy. The NHS has many committed nurses, dedicated to patient care. Patients must be given a choice of doctors they are able to visit. The government must make an effort to keep the cost of healthcare under control without limiting patient choice. Reforms must reduce waste and excess costs, while giving doctors the freedom to practice medicine as they see fit."

10. Crime

- Left: "We are proud of our record on civil liberties, protection of freedom, and privacy. The role of the government is to protect citizens' civil liberties and freedom. Government must also protect citizens' privacy while seeking justice. Bankers are responsible for reducing confidence in the justice of our system. Their behavior is not civil. Bankers must be brought to justice. Bankers' criminal behavior has undermined our trust in liberties and freedom. Learning the lessons means bringing more bankers than ever before to justice. They do not have the freedom to do whatever they please. We need a return to civility. We need to protect the privacy of our citizens. Privacy is a basic civil liberty. The government must protect individual privacy and civil liberties. Government must protect freedom, basic civil liberties, and individual privacy in any democratic society. Without strong protections for civil liberties, true freedom is not possible."
- Right: "The crime rate is rising. Illegals threaten this country. Our prisons are full. Law and order is not upheld. We will change that. We will prosecute crime and ensure the law is upheld. Those who break the law and commit crimes and other illegal acts will be prosecuted and sent to prison. To create an orderly society, we must uphold the law and prosecute criminals who break the law. Anyone who breaks the law three times will be sentenced to prison for good. Illegals in this country will be prosecuted and law and order will be upheld. Illegal immigrants need to be sent to prison for a longer time if they are serious criminals. The state must prosecute crime more quickly than today and must build new prisons to send criminals to. Prisons must receive adequate funding. The government must enforce the law. The government should not tolerate any form of illegal activity. All illegal activity will be prosecuted, and the law will be upheld. The most serious of prosecuted illegal criminals need to be deported once they serve their time in prison."
- Center: "We are proud of our record on civil liberties, protection of freedom, and privacy. The role of the government is to protect citizens' civil liberties and freedom. Government must also protect citizens' privacy while seeking justice. Bankers are responsible for reducing confidence in the justice of our system. Their behavior is not civil. Bankers must be brought to justice. Bankers' criminal behavior has undermined our trust in liberties and freedom. The state must prosecute crime more quickly than today and must build new prisons to send criminals to. Prisons must receive adequate funding. The government must enforce the law. The government should not tolerate any form of illegal activity. All illegal activity will be prosecuted, and the law will be upheld. The most serious of prosecuted illegal criminals need to be deported once they serve their time in prison."

11. Education and Family

- Left: "We want prosperity and social mobility for all. We will ensure that all children have the chance to move up the social mobility ladder and reach prosperity through education. Education is absolutely essential for ensuring children's future social mobility. Children, regardless of their background should be entitled to a good education. Unless all children are provided with a good education, our future prosperity will be placed in jeopardy. Children, the most vulnerable people in society, must be protected. Children in vulnerable situations must be given access to quality education. A quality education is a child's best ticket to social mobility and future prosperity. We cannot deny vulnerable children the chance at a good education. Without ample opportunities for social mobility through education, vulnerable children will never have the opportunity to experience prosperity. Government must do all it can to support vulnerable women and children and provide them with opportunities for education. Supporting vulnerable women and children will increase children's chances at social mobility. All barriers to social mobility need to be tackled by giving the most vulnerable children free access to education. Education is fundamental to prosperity."

- Right: “We will safeguard the real values of our community, including marriage, family, community, and parental control. Family is the core structure of our society. Government needs to encourage the family by introducing marriage allowance, which increases when couples are parents. Marriage takes a valuable place and is congruent with our family values. Parents face hard times. We must reduce fees that penalise parents, families and married couples. Society needs more community-based values and less fees that are a burden on families. Parents need to be in control over their families, not the government. The government must strive to build a strong community in which parents feel comfortable raising a family. The government must pursue more and more policies that strengthen community and family values and reduce the fee burden. Marriage forms the cornerstone of a healthy family. Parents must play a role in building strong community schools. Family values based upon marriage underpin our entire society. Parents must instill family values in their children. Communities built around strong family values are essential. Young people will be required to take courses in summer during which they will work in the community. These courses would instill community values in everyone. Parents want to see that traditional values play a large role. Young people need to be community leaders so that they can follow their parents and eventually be able to enter marriage and found their own family, all while being good community citizens.”
- Center: “We want prosperity and social mobility for all. We will ensure that all children have the chance to move up the social mobility ladder and reach prosperity through education. Education is absolutely essential for ensuring childrens’ future social mobility. Children, regardless of their background should be entitled to a good education. Unless all children are provided with a good education, our future prosperity will be placed in jeopardy. Children, the most vulnerable people in society, must be protected. Parents must instill family values in their children. Communities built around strong family values are essential. Young people will be required to take courses in summer during which they will work in the community. These courses would instill community values in everyone. Parents want to see that traditional values play a large role. Young people need to be community leaders so that they can follow their parents and eventually be able to enter marriage and found their own family, all while being good community citizens.”

Appendix D. Sample Screen from Manifesto Online Coding Measurement Exercise

*We are interested in how you perceive internal conflict within political parties. Suppose a political party is preparing its manifesto for an upcoming election campaign. Two different versions of the economic policy section of the manifesto are under consideration, as shown below. Please read these two statements carefully.

Statement A:

Fiscal responsibility should be the government's top priority by reducing the deficit and public spending. Increased public spending is required to provide equal and fair access to government services. Moreover, sustainable economic recovery comes from lowering corporate tax rates and reducing the regulatory burden for businesses.

We must focus on job creation at home by helping industry expand their workforce. Private companies must be allowed to choose whom to hire. A national minimum wage for all workers and equal pay for equal work is essential. In addition, public workers need to get remunerated fairly for their service to this country.

The government should not interfere with private businesses as this hampers growth and innovation. In a healthy economy, competition between a small number of state-owned enterprises and private industry leads to growth. Finally, we see a swift return to full employment, with more chances to get on at work and a fair distribution of growth throughout the country.

Statement B:

A responsible budget that puts people back to work and controls public spending is necessary. Cutting taxes and eliminating wasteful spending on public services is a necessary step. Moreover, a good corporate tax code allows business to contribute to society by employing workers, investing in new technology, and giving back in taxes.

We must focus on job creation at home by helping industry expand their workforce. Business must be free to employ whomever they wish, provided they do not discriminate on the basis of gender or race. A minimum wage policy must ensure workers an adequate level of income without discouraging business from hiring. In addition, public workers need to get remunerated fairly for their service to this country.

The government should not interfere with private businesses as this hampers growth and innovation. In a healthy economy, competition between a small number of state-owned enterprises and private industry leads to growth. Finally, we see a swift return to full employment, with more chances to get on at work and a fair distribution of growth throughout the country.

In your opinion, which party statement expresses more internal disagreement?

Choose one of the following answers

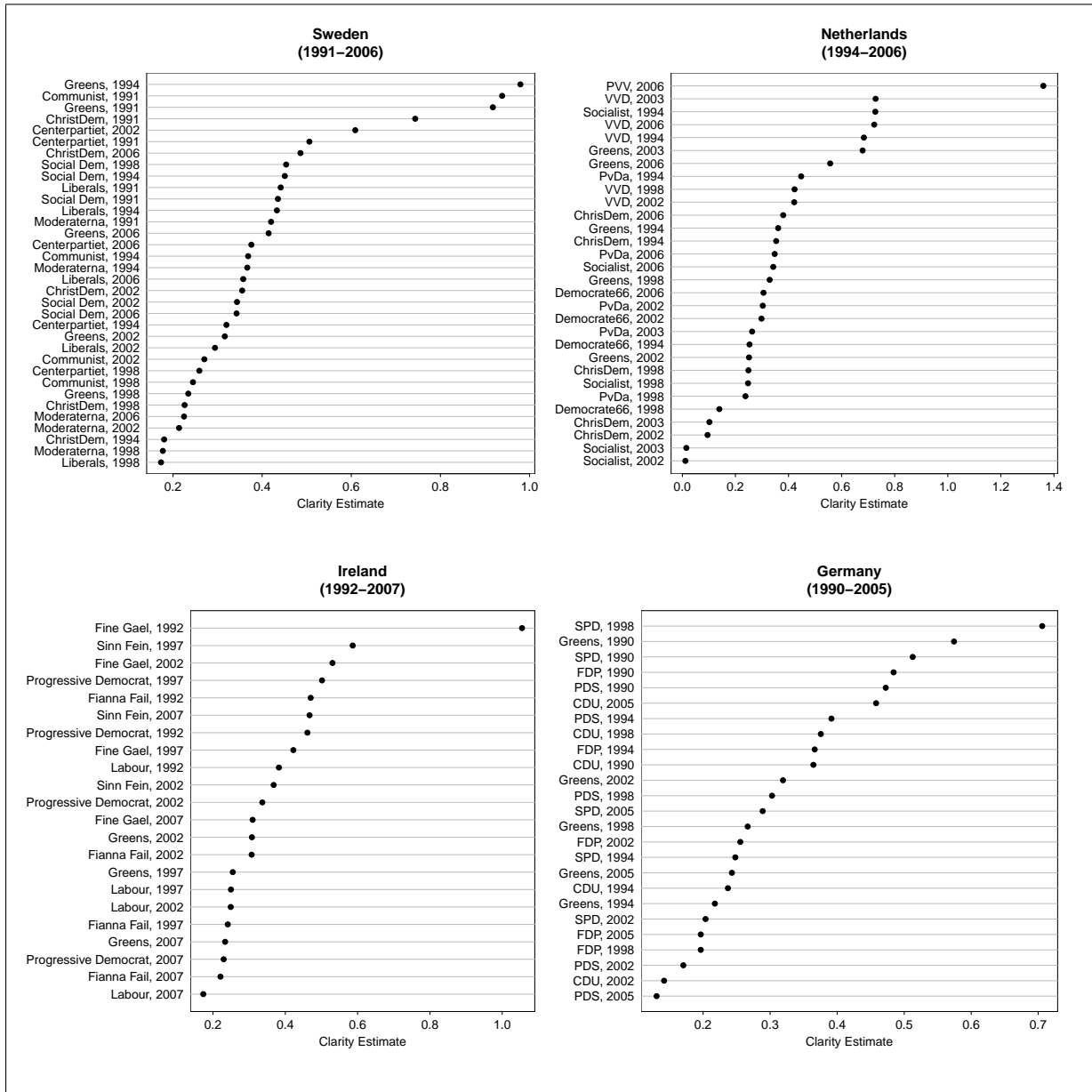
- Statement A expresses more internal disagreement
- Statement B expresses more internal disagreement

Appendix E. Correlations of Position and Clarity Estimates

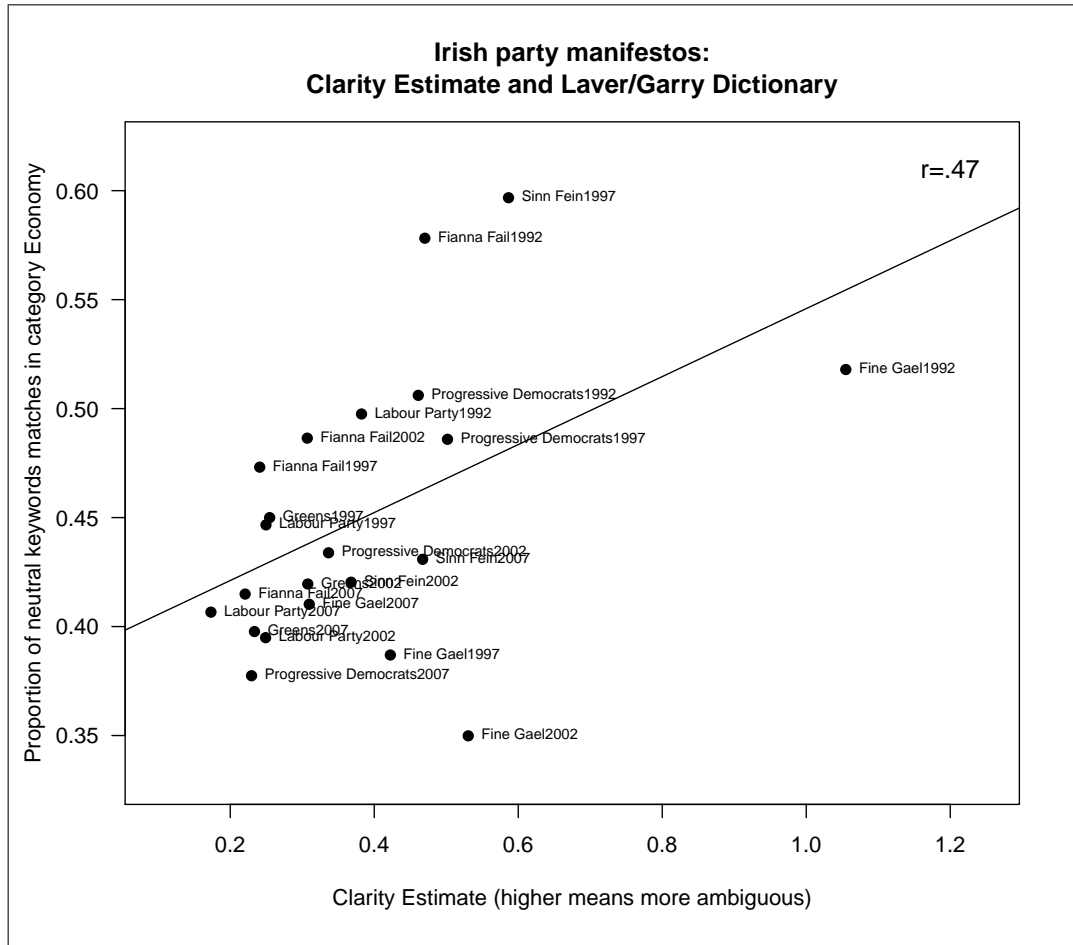
	Position Estimates		Clarity Estimates	
	C-Wordfish vs. Original (1990–2007)	C-Wordfish vs. RILE (1990–2007)	C-Wordfish vs. LogRILE (1990–2007)	C-Wordfish vs. Chapel Hill (1997–2007)
Germany	+ .96	+ .82	+ .82	+ .87
Ireland	+ .95	+ .46	+ .49	+ .85
Netherlands	+ .92	+ .48	+ .50	+ .83
Sweden	+ .78	+ .87	+ .81	+ .57
				S.E. RILE (1990–2007)
				+ .29
				+ .75
				+ .56
				+ .33

Note: Original = Poisson Wordfish, C-Wordfish = (Negative Binomial) Cohesion-Wordfish, RILE = Manifesto Project Left-Right scale (Budge *et al.* , 2001; Klingemann *et al.* , 2006), LogRILE = Manifesto Project Logit Left-Right Scale (Lowe *et al.* , 2011), S.E. RILE = Bootstrapped standard errors for Left-Right scale (Benoit *et al.* , 2009), Chapel Hill = Chapel Hill Expert Surveys (Marks *et al.* , 2007; Hooghe *et al.* , 2010). Correlations between clarity estimate and RILE S.E. are significant with the exception of Germany.

Appendix F. Manifesto Clarity Estimates in Four Countries



Appendix G. Correlation of Irish Clarity Estimates with Alternative Measure Based on the Laver and Garry Policy Dictionary



Here, we compare our ideological clarity estimates for Ireland to an alternative manifesto-based measure that we develop based on the policy dictionary created by Laver and Garry (2000). This dictionary was originally used to estimate policy preferences expressed in manifestos. Although it was developed using British party manifestos, the authors demonstrate applicability to Irish party manifestos as well. We use their dictionary as implemented in the content analysis software Yoshikoder (<http://www.yoshikoder.org>). Based on a hierarchical manifesto coding scheme, the dictionary includes keywords for nine different policy areas. Importantly, Laver and Garry assigned keywords to positive, negative, and – if possible – neutral subcategories within each area. For instance, keywords for the economic policy area are subdivided into the following three categories: (a) those expressing support for state intervention in the economy, (b) those expressing opposition to state intervention, and (c) those expressing a neutral stance regarding the level of state involvement.

Laver and Garry use keyword matches from the first two categories (pro or con state intervention) to calculate economic policy positions, disregarding the matches for the neutral keywords. For a potential validation with our clarity estimates, however, the occurrence of neutral keywords regarding the level of state intervention may be particularly useful. If parties use these neutral keywords more frequently to express more ambiguous positions, then we would expect that our clarity estimates correlate positively with the occurrence of neutral keywords. To test this hypothesis, we first apply the economic policy dictionary to Irish party manifestos. As a measure of ambiguity, we calculate the proportion of matches in the neutral category out of all matches in the economic policy category. Applied to Irish manifestos, this measure ranges from .35 to .60, with a mean of .45. In other words, on average 45 percent of economic policy keywords mentioned in a manifesto are in the neutral category, and 55 percent are either expressing a position pro or contra state intervention. Finally, we correlate this measure with our clarity estimate. The proportion of neutral keywords correlates significantly at $+0.47$ ($t = 2.39$, $p = 0.027$) with our parameter estimate. In sum, the results lend support to the notion that our estimate captures substantive information regarding ideological clarity.

References

- Benoit, Kenneth, Michael Laver, and Slava Mikhaylov. 2009. Treating Words as Data with Error: Uncertainty in Text Statements of Policy Positions. *American Journal of Political Science* 53(2):495–513.
- Budge, Ian, Hans-Dieter Klingemann, Andrea Volkens, Judith Bara, and Eric Tanenbaum. 2001. *Mapping Policy Preferences: Estimates for Parties, Electors, and Governments 1945-1998*. Oxford: Oxford University Press.
- Hooghe, Liesbet, Ryan Bakker, Anna Brigevid, Catherine De Vries, Erica Edwards, Gary Marks, Jan Rovny, Marco Steenbergen, and Milada Vachudova. 2010. Reliability and Validity of the 2002 and 2006 Chapel Hill Expert Surveys on Party Positioning. *European Journal of Political Research* 49(5):687–703.
- Klingemann, Hans-Dieter, Andrea Volkens, Judith Bara, Ian Budge, and Michael McDonald. 2006. *Mapping Policy Preferences II: Estimates for Parties, Electors and Governments in Central and Eastern Europe, European Union and OECD 1990-2003*. Oxford: Oxford University Press.
- Laver, Michael and John Garry. 2000. Estimating Policy Positions from Political Texts. *American Journal of Political Science* 44(3):619–634.
- Lowe, Will, Kenneth Benoit, Slava Mikhaylov, and Michael Laver. 2011. Scaling Policy Preferences from Coded Political Texts. *Legislative Studies Quarterly* 36(1):123–155.
- Marks, Gary, Liesbet Hooghe, Marco Steenbergen, and Ryan Bakker. 2007. Crossvalidating Data on Party Positioning on European Integration. *Electoral Studies* 26(1):23–38.