Policy feedback and economic risk: the influence of privatization on social policy preferences
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ABSTRACT Through policy feedback mechanisms, public policies can shape individuals’ preferences for those policies. While research has focused on the direct link between policies and preferences, how policies alter individuals’ preferences through indirect means remains less explored. Broadly, we argue that how micro-level factors influence policy preferences is contingent on the policy context, and specifically we contend that how economic risk influences preferences is contingent on the policy institutions that privatize social protection responsibilities. Using healthcare policy as the empirical context, we show that the level of privatization in national healthcare systems will colour how the risk of unemployment affects preferences for government healthcare.

KEY WORDS Economic risk; policy feedback; policy institutions; social policy preferences.

Given both the academic and public interest in how governments respond to mass policy preferences, explaining the interwoven links between public policies and the creation of those preferences continues to interest scholars. While at the micro-level, researchers have focused on individuals’ economic, social and ideological characteristics (Cusack et al. 2006; Iversen and Soskice 2001; Korpi 1983; Linos and West 2003; Lipsmeyer and Nordstrom 2003; Margalit 2013; Meltzer and Richard 1981; Moene and Wallerstein 2001; Rehm 2011), others concerned with the role of policy institutions have looked to how policies themselves can shape preferences (Brooks and Manza 2007; Pierson 1993; Wlezien 1995). Since the public’s preferences do not exist in a vacuum but reside in a larger policy environment, how existing policies affect policy preferences remains an important question.

From a government responsiveness perspective, research on the interplay between preferences and public policies has shown that the public’s preferences can influence government policy (Hobolt and Klemmensen 2008; Kang and Power 2010). But work also illustrates how policy feedback shapes policy preferences, highlighting the changes that policies can have on the public’s
preferences once those policies are in place (Campbell 2012; Esping-Anderson 1990; Mettler and Soss 2004; Pierson 1993; Soss and Schram 2007). This resonates with the thermostatic argument that finds preferences move or remain the same depending on how the government alters policy (Jennings 2009; Soroka and Wlezien 2010; Wlezien 1995). However, the research examining the influence of policies has tended to focus on why institutions have feedback effects on policy preferences, while we are interested in how policies have this influence on preferences. We theorize about how policies can frame individuals’ perceptions of their own economic situations and thereby indirectly affect their preferences.

Beginning with the substantial research on micro-level causes of mass policy preferences, we theorize that the feedback from policies will colour how these individual-level factors influence preferences. We contend that how a policy affects individuals will condition how their personal factors will shape their preferences for that policy area. Current policies then may influence preferences more subtly than the extant institutional literature would expect. Instead of directly shifting policy preferences, policies also may alter how individuals perceive their own self-interest.

To investigate the role of policy in shaping policy preferences, we turn to the influence of social policy institutions. These institutions are more than a combination of social insurance and assistance policies that buffer individuals from the uncertainties of the labour market and life cycle; they also help to shape individuals’ preferences for government provisions (Campbell 2012; Esping-Anderson 1990; Soss and Schram 2007). But their effects may go beyond a direct relationship on preferences (Gingrich and Ansell 2012; Jordan 2010; Larsen 2008). We argue that depending on how policies divide these uncertainties into public and private responsibilities, they may frame how people view their own current and future economic situations, which shape their ideas of how policies may or may not benefit them. For example, if a policy stipulates that only those below an income level may receive assistance, then individuals’ policy preferences may differ along income lines. Here, we use a policy area that allows for connections between micro-level factors, policy institutions and policy preferences: healthcare policy.

We theorize about how the rules that govern healthcare benefits can frame how an individual’s unemployment risk alters his preference for government-supplied healthcare provision. In broad terms, we expect that individuals will support policies that benefit them, and various aspects of the policy, such as coverage, costs and qualifying conditions, will affect this calculation directly. But these institutional aspects will have different effects depending on individuals’ economic situations. We argue that in the case of healthcare, the coverage and affordability of care will frame how the risk of being unemployed will affect preferences for government healthcare assistance. Using survey data from the International Social Survey Programme (ISSP 2006), we find that the threat of unemployment influences support for government healthcare differently, depending on the institutional framework of the healthcare system.
Our contributions to the literature on institutions and policy preferences, as well as to the methods of cross-national social policy preferences are two-fold. First, we add to the theoretical literature on institutional effects by showing how policy feedback mechanisms can have a more subtle influence by altering how individual factors shape preferences. This fills in gaps in the institutional literature that have largely focused on the direct effect of institutional feedback but not the conditional (indirect) effect of policy institutions. Second, we offer a novel latent variable approach that captures nuanced cross-country policy variation, highlighting the complex set of institutional arrangements within a policy. By tying varying institutional features with micro-level factors, we present a more comprehensive picture of how policy institutions can shape preferences.

**MICRO-LEVEL FACTORS, POLICY INSTITUTIONS AND POLICY PREFERENCES: THE LITERATURE**

What explains popular demand for social policy provision? Much work has focused on the individual-level factors – e.g., income, labour market position and ideology – that shape policy preferences and explain the variation in preferences between people. For instance, scholars have fine-tuned their expectations for how an individual’s income can affect his preferences by looking to the threat of unemployment (Cusack *et al.* 2006; Iversen 2005; Iversen and Soskice 2001; Korpi 1983; Margalit 2013; Rehm *et al.* 2012). Because social insurance policies tend to protect individuals from the uncertainties of the labour market, scholars have highlighted self-interest as a driving force for these policies (Anderson and Pontusson 2007, Busemeyer *et al.* 2009; Meltzer and Richard 1981; Peacock and Wiseman 1961; Rehm 2009, 2011). As an individual’s uncertainty in the labour market increases, his demand for benefits should increase, because the economic insecurity alters his expectation of his future need for government assistance (Burgoon and Dekker 2010; Casamatta *et al.* 2000; Iversen 2005; Moene and Wallerstein 2001). By emphasizing the role of individual-level factors in explaining policy preferences, present research largely ignores the policy contexts in which individuals are making their economic calculations. This literature offers little knowledge about how cross-country differences in the institutional design of social policies affect mass policy preferences (Anderson and Pontusson 2007).

Those scholars investigating the links between the institutional design of social policies and the variation in policy preferences have been interested in explaining why institutions shape attitudes. They emphasize that through feedback mechanisms policies influence the public’s support for policies (Esping-Anderson 1990; Jordan 2013; Pierson 1993; Soss and Schram 2007), even showing that they can shape what policies the public desires (Campbell 2012; Mettler and Soss 2004; Rothstein 1998). While the research remains open to how the feedback mechanisms affect individuals’ attitudes, scholars tend to focus on forms of economic self-interest or political efficacy. Another version
of this argument contends that policies and public opinion have a thermostatic relationship, where preferences respond to current policy by either shifting for policy change or signalling a preference for the status quo (Jennings 2009; Soroka and Wlezien 2010; Wlezien 1995).

This research on institutions and feedback sheds light on why social policy institutions can affect mass preferences, but two important questions remain about how these macro-level contexts may indirectly affect preferences. First, in examining social policy preferences, researchers have tended to rely on a typology of broad regime classifications to compare welfare institutions, but recent work questions the validity of aggregating policies into ‘types’. Given that social policies differ in how they interact with individuals (through the labour market, the government, etc.), lumping policies together may hide the variation in the institutional arrangements that affect policy preferences (Busemeyer et al. 2009; Goerres and Tepe 2010; Jæger 2006; Larsen 2008; Wendt et al. 2010). In fact, empirical analyses of the effect of welfare regimes on policy attitudes have produced mixed results (Jæger 2006; Linos and West 2003; Lynch and Myrskyla 2009; Svallfors 1997).

Second, scholars have tended to treat social policy institutions and individual self-interest as two independent forces on policy preferences. They overlook that these institutions differ in their compositions of public–private options (Hacker 2002) and that these arrangements can alter the calculation of an individual’s self-interest (Gingrich and Ansell 2012; Hacker 2004a). While some researchers have qualitatively examined the public–private components when examining the institutional designs of areas such as education, healthcare and old-age programmes (Hacker 2002; Klein 2003; Rein and Rainwater 1986), they have not connected it to individuals’ economic situations. A key institutional component of social policies is how they can have both public and private mechanisms, and to advance the policy feedback and preference literatures we need to explore how this variation can directly and indirectly shape policy preferences (Pierson 2006).

In theorizing about the various effects of social policy institutions, we focus on how their relationship to the labour market affects how individuals’ perceive their economic risks and, therefore, their need for social assistance. With only a few exceptions (Gingrich and Ansell 2012; Jordan 2010), previous researchers have looked at the indirect impact of social policy institutions within unemployment-related programmes. Relying on these programmes limits their theory, because individuals cannot receive assistance without having worked, allowing for no variation in their labour market situations. In addition, since governments implement the programmes, there is no variation in the public–private composition of the institutions. Instead, we theorize that institutions can vary not only in how they link to the labour market but also in who pays for the assistance, so institutional feedback mechanisms have an influence, not only because of an individual’s employment status, but also through the public and private funding of the policy. Requiring a policy area that offers variation for both of these attributes, we turn to healthcare. Industrialized democracies
have developed substantially different national healthcare systems that vary in how they treat public and private responsibilities for healthcare. In addition, our research adds to the existing literature by showing how the spill-over effect of individuals’ unemployment risk can translate into their demand for social protection in other risk areas, such as healthcare (Hacker et al. 2013).

**DIRECT FEEDBACK EFFECTS OF POLICY INSTITUTIONS**

Social policy programmes provide protection against economic uncertainties, but their institutional rules dictate how policies affect individuals. Policy institutions ‘delimit the scope of shared risks – the degree to which potent threats to income are spread across citizens of varied circumstances (risk socialization) or left to individuals and families to cope with on their own (risk privatization)’ (Hacker 2004b: 249). How policy institutions delineate between these two kinds of risk, whether collective or privatized, affects individuals’ incentives for public assistance. This theoretical picture taps into the underlying continuum of policy responsibility that ranges from governments to the private sector.

One central insight from the policy feedback literature is that social policies produce supportive citizen coalitions by providing incentives to those who will benefit from them (Campbell 2003; Pierson 1993). Because the institutional design of these policies affects how benefits are distributed and how much protection individuals receive, they influence attitudes towards the policy directly (Campbell 2012; Jæger 2009; Jordan 2013; Pierson 2006; Svallfors 1997). This highlights that how policy institutions interact with individuals can affect their support for policies.

How do healthcare institutions influence policy preferences? National healthcare institutions have multiple, overlapping components that affect an individual’s ability to receive assistance. The institutions range from a model of ‘a universal, state-administrated’ system, to a co-ordinated national insurance programme, and a decentralized, employment-based benefit system (Giaimo 2001: 335). They define both the structure and coverage of national healthcare systems, and therefore can shape individuals’ demand for the government’s involvement in healthcare. On the one hand, national health service systems create large, stable collective risk pools and institutionalize automatic access to assistance based on citizenship/residency with direct government control over the production of health services (Jacobs 1998; Jordan 2010). In these publicly oriented systems, regardless of their incomes and labour insecurities, individuals share similar risk responsibilities through their tax payments and equally receive publicly financed benefits. As a result, support for their current policy – publicly provided healthcare – would be high.

On the other hand, in privatized healthcare systems, individuals’ access to benefits is linked to their employment status, as well as to their and their employers’ contributions. Risk is not collective. Instead, the responsibility for economic risk varies based on individuals’ differing employment situations.
and incomes. In these systems, government programmes tend to selectively cover a relatively small group of beneficiaries (Jordan 2013), which creates few outright beneficiaries to support the program. With the privatized system differentiating between people by employment and income, conflicting economic interests reduce their willingness to support a high level of government healthcare spending that might force them to bear the financial burden for other people’s healthcare needs (Jordan 2010; Pierson 2001). Existing private policies also can produce feedback effects on mass preferences through their policy legacies (Hacker 2002; Martin 1995; Pierson 1993). Once established, private social programmes create vested interests between employers, private interest groups and workers that, in turn, can crosscut support for the public alternative (Gottschalk 2000; Hacker 2002; Klein 2003). Therefore, we derive Hypothesis 1 from our theory about the direct effect of healthcare institutions:

H1: The effect of privatized healthcare institutions on support for public healthcare provision will be negative.

INDIRECT EFFECTS OF POLICY INSTITUTIONS: PRIVATIZATION AND ECONOMIC RISK

Policy institutions also may play an intervening role by altering how an individual’s sense of self-interest affects policy preferences. While many existing studies suggest that risk in a specific domain leads to favourable attitudes toward policies that buffer that domain-specific risk (Iversen 2005; Rehm 2009), more recent research finds spill-over effects of risk – exposure to unemployment risk can shape one’s attitudes toward social policies in other policy domains, such as healthcare (Hacker et al. 2013; Schlesinger 2011). How can the risk of unemployment affect policy preferences in the healthcare domain? First, for workers whose healthcare coverage is tied to their employment, the risk of unemployment means the risk of losing healthcare coverage. For employed individuals without such healthcare, the risk of unemployment means the risk of losing earned income. Thus, when one needs medical care, he either does not have the necessary financial resources or it will place a stress on his finances.

Second, recent survey research shows that there is a positive correlation between unemployment risks and health risks. During the recent economic recession, Hacker et al. (2013: 34) find that ‘the vast majority of Americans who experienced a shock to employment also reported a shock in one of the other domains (health, family, wealth), and often in several at once’. In sum, economic risk correlates with risk in other domains and can trigger correlated financial worries across different policy domains; therefore, it substantially affects one’s attitudes toward government’s responsibility in providing social protection in other policy domains such as healthcare.

Nevertheless, for healthcare policy, the rules that govern coverage can frame how an individual’s risk of unemployment alters his preference for government-
supplied healthcare provision. Because the level of healthcare privatization determines how much individuals’ benefits are linked to their employment status and contributions, it may structure how the risk of being unemployed influences their preferences for government healthcare provision. In other words, how economic uncertainty shapes an individual’s preference for healthcare may vary depending on the type of healthcare system in which he resides.

Through two mechanisms, institutions can have indirect feedback effects on policy preferences. First, the institutional design of healthcare systems determines whether individuals can directly benefit from increased government healthcare provision. Unemployment risk varies across individuals and can trigger new demand for healthcare assistance, but these calculations differ depending on the healthcare system. In publicly oriented systems, healthcare coverage is independent from employment status. Workers at higher risk for unemployment would be enthusiastic about increasing government-provided healthcare, because it can reduce their financial burdens when they have difficult economic experiences.

When turning to privately oriented healthcare systems, the link between healthcare and unemployment becomes stronger, because the emphasis is on privatizing the risks rather than on the government collectively covering them. Healthcare here goes hand-in-hand with employment, and the risk of unemployment becomes a threat to healthcare coverage. Unlike in publicly oriented systems, those calculating bigger unemployment risks in privatized systems (with few to no government options) will not support increasing government spending on healthcare (Soss and Schram 2007). Instead, they will prefer retaining their incomes and taxes to help offset the costs of private healthcare. The logic is simple: people are not likely to support increasing government healthcare spending when it does not directly compensate their own risks (Gingrich and Ansell 2012). For example, most workers in the United States (a privately oriented healthcare system) have their healthcare through employment and are not qualified for government-provided coverage (Medicaid). When facing greater risk of unemployment, they will become even less enthusiastic about increasing government healthcare spending, especially in Medicaid, because they will not directly benefit from the programme.

Secondly, who pays for healthcare assistance can indirectly affect preferences. Government involvement in compensating for healthcare costs differs across national healthcare systems (Immergut 1992). While largely government-funded healthcare institutions place limited financial burdens on individuals, these costs will affect those who are at risk for unemployment more than those with more stable situations. While individuals in these public systems will prefer more spending on government healthcare, those with higher unemployment risks will support more assistance than others as a means to decrease their individual costs. However, privately oriented systems tend to be insurance-based, so they place more of the financial burden on individuals. When employed, employers help to compensate for the costs, reinforcing the dependence on employment. These systems also may rely heavily on out-of-pocket
payments, making individuals more dependent on employment. Those at higher risk of unemployment are more likely to lose their healthcare and by extension the employer who subsidizes them in the private system, so they will be less likely to support more government spending on a policy that would increase their financial burdens, while not offering them benefits (Schlesinger 2011).

Therefore, we hypothesize that unemployment risk has varying effects on preferences regarding public healthcare provision, conditioned by the different contexts of healthcare institutions:

H2a: When healthcare institutions are less privatized, the effect of unemployment risk on support for public healthcare provision will be positive.

H2b: When healthcare institutions are more privatized, the effect of unemployment risk on support for public healthcare provision will be negative.

TESTING THE DIRECT AND INDIRECT FEEDBACK EFFECTS OF PRIVATIZATION

To test the relationships between healthcare institutions/privatization, unemployment risk and preferences for government healthcare provision, we use data on individuals’ demands for public healthcare provision in 19 Organization for Economic Co-operation and Development (OECD) countries from the ISSP 2006 Role of Government Survey Wave IV (ISSP 2006).8

Variables and measures

Support for public healthcare provision
We measure the dependent variable – support for public healthcare provision – using the ISSP 2006 survey item that asks respondents’ preferences for government healthcare spending. The question asks respondents if they would like more or less government spending on healthcare with five choices: 1 (spend much more); 2 (spend more); 3 (spend about the same); 4 (spend less); and 5 (spend much less). The questionnaire reminds the respondent that if he says ‘yes’, it might require a tax increase to pay for it. Because we are interested in individuals’ support for government spending, we recode the original scale into two categories and reverse the order: 1 (‘spend much more’ or ‘spend more’) and 0 (all other choices).

Healthcare privatization
We contend that a complex set of policy institutions underpin the privatization of risk responsibility in healthcare (Hacker 2004b; Wendt 2009). To map various institutions that determine the public–private divide, we use a two-step measurement strategy. First, we conduct a comparative analysis by assessing key policy institutions that depict the public–private mix of healthcare
provision. Second, we perform scaling analysis and map different health policy institutions onto a latent scale of privatization.

Relying on an OECD expert survey of national healthcare systems characteristics (Paris et al. 2010), we compare the public–private variation in healthcare institutions based on nine institutional indicators, categorized as the following:

- **Structure.** The structure of national healthcare systems measured by who provides the basic primary health insurance coverage for a typical employed worker: the government or the private market (employees and/or private third parties). This indicator is coded on a 1–3 ordinal scale, with 1 referring to national health service systems, 2 indicating single-payer social insurance schemes and 3 denoting social insurance schemes with multiple insurer.

- **Coverage.** The scope of public and private coverage of primary healthcare insurance. In the OCED survey of national healthcare systems, the coverage indicator is on a 1–3 ordinal scale, with 1 indicating 100 per cent automatic coverage, 2 referring to compulsory coverage or automatic-compulsory and 3 indicating that voluntary insurance plans cover a substantial proportion of the population.

- **Financial Responsibility.** The divide of public and private financial responsibilities for covering healthcare costs. We include six specific items to measure financial responsibility for: (1) acute inpatient care; (2) out-patient physician visits; (3) specialist visits; (4) medical tests; (5) imaging; and (6) purchasing pharmaceuticals. We also include a seventh item to measure the percentage of total private healthcare spending by country in 2005. Drawing from the OECD national health systems survey, the first six indicators are coded on a 1–4 ordinal scale, with 1 denoting 100 per cent coverage of cost, 2 referring to 76–99 per cent coverage of cost, 3 indicating 51–75 per cent coverage of cost, and 4 referring to less than 50 per cent coverage of cost by primary health insurance. The seventh item reflects cross-country differences in the relative distribution of private healthcare spending at the national level.

We code the nine institutional components on ordinal scales, with larger scores indicating more private responsibilities in healthcare, and find that the 19 OECD countries vary markedly in their designs of healthcare institutions. Despite the similarities in their larger structures (e.g., the cluster of national health service systems and social insurance systems), countries vary in specific areas for privatizing healthcare responsibilities. For example, the United Kingdom (UK), Spain, Canada, Denmark and Portugal have national health service systems, where governments directly provide primary healthcare and cover most types of medical costs. Government responsibility for covering pharmaceuticals, however, differs substantially across these systems. Citizens in Canada, Denmark, and Portugal would pay a much higher out-of-pocket proportion for medicine than in the UK and Spain.

We apply the item-response theory (IRT) and scale multiple institutional indicators into a one-dimensional latent Privatization scale. The IRT procedure accounts for both cross-country and cross-institutional item variation and recovers
a standardized scale with a mean value of 0 (Van Schuur 2011). Figure 1 presents the mean privatization scores for the 19 OECD countries with the 95 per cent credible intervals. The UK has the most public-oriented healthcare system, in which the government provides coverage and services directly to citizens. With the highest privatization score, South Korea has a system where primary healthcare coverage is insurance-based, employment-dependent, and individual workers need to assume relatively high financial responsibilities for major types of healthcare services.

Figure 1 Privatization of healthcare responsibility
Unemployment risk
Relying on the measurement design in Rehm’s (2009) study, we use occupation unemployment rates as a proxy for market risks. Based on the International Labour Organization (ILO) one-digit ISCO88 classification of nine occupation categories, we create the occupation unemployment risk measure by counting the number of unemployed workers as a percentage of the civilian labour force in each occupation category and country. This measure yields 171 different values for unemployment risks by occupation and country.

Micro-level controls
We control for micro-level factors associated with individuals’ demands for public healthcare provision. First, we control for two economic variables highlighted by the political economy literature: skill specificity and income. We operationalize the concept of skill specificity using Iversen’s s1 measure for skill and knowledge specialization (Iversen 2005). Following (Rehm et al. 2012), we recode the ISSP country-specific income data into 99 percentiles based on each within-country distribution. As such, the measurement scale reflects income levels from low to high and is comparable across countries.

Next, we include age, male, married, and education as demographic factors that affect how people interpret their self-interests (Busemeyer and Weschle 2009; Jordan 2010). Third, we control for left–right party support and labour union membership; as people who support left-wing parties and who are union members are more supportive of increased social spending (Gingrich and Ansell 2012; Rehm 2011; Rudolph and Evans 2005). Fourth, we include people’s current employment status, Nonemployed.

Status quo public health spending
Individuals’ demands for more or less government healthcare spending could be driven by their feelings toward the existing level of public healthcare spending that varies across countries (Wlezien 1995). Therefore, we control for differences in the status quo level of public health spending (measured by total government healthcare spending as a percentage of national gross domestic product [GDP]).

Interactions
To capture the indirect effects of healthcare privatization on preferences, we include an interaction term between unemployment risk and healthcare privatization: Risk × Privatization. Following existing theory on social policy preferences (Iversen 2005), we include two interaction terms to control for the conditional effects of income, skill, and risk: Income × Skill and Income × Risk. Since income is a major alternative factor to risk in accounting for preferences, we include Income × Privatization in the model.
Methods

Because we code our dependent variable as a dichotomous variable, a logit model specification is appropriate. Given that we connect micro-level data with the country-level institutional variable, we follow Franzese’s recommendation and take the one-step micro–macro interaction strategy for estimating the empirical models with robust standard errors (Franzese, 2005). We do not estimate a more complex hierarchical linear model (HLM) shrinkage estimator for two reasons. First, because we have a limited number of cases at the higher-level (9 occupation groups and 19 countries), a multi-level logit model with hierarchical shrinkage estimators does not improve substantially the one-step micro–macro interaction specification (Beck 2005; Franzese 2005; Gelman and Hill 2007). Second, with a very small N at the country level, estimation reliability becomes questionable.17

THE DIRECT AND INDIRECT EFFECTS OF INSTITUTIONS ON POLICY PREFERENCES

We began by theorizing about the direct effect of institutions on preferences for social policy, presenting these results in Model 1 of Table 1.18 It shows the linear relationships of Privatization and Risk with healthcare preferences, providing support for H1 – a negative effect of privatization on support for more government spending on healthcare. This highlights the expected feedback effects of privatization on policy preference.

In Table 1, Model 2 is a baseline specification that only includes Risk, Privatization and Risk × Privatization. Model 3 is the full specification. Because a direct interpretation of coefficients in an interactive logistic model can be difficult (Long and Freese 2005), we transform slope coefficients in Model 3 into the marginal effects of risk on the probability of supporting more government healthcare spending. To acknowledge the uncertainty in the parameter estimation, we use simulation-based methods to calculate these marginal effects and their corresponding confidence intervals, holding all control variables at their means (Brambor et al. 2006). These marginal effects capture how the effect of one variable of interest is contingent on the other and assist in the testing of the indirect feedback effects of healthcare privatization.

We use the graphs in Figures 2a and 2b to illustrate how healthcare privatization conditions the effect of unemployment risk on support for more government healthcare spending.19 Figure 2a shows the marginal effects of risk across the full range of the privatization variable, and we find that the marginal effect of risk varies significantly across the levels of healthcare privatization. When healthcare institutions are less privatized (more publicly oriented), risk has a positive marginal effect on support for increasing government healthcare spending. When they are more privatized, risk has a negative effect on support for more government healthcare spending. Using this graph, we can see that risk
Table 1 Effects of risk and privatization of healthcare responsibility on support for increasing government healthcare spending

| Variable                  | Model (1) coeff.  | (Robust SE) | Model (2) coeff.  | (Robust SE) | Model (3) coeff.  | (Robust SE) |
|---------------------------|-------------------|-------------|-------------------|-------------|-------------------|-------------|
| Risk                      | 0.0071            | (0.0070)    | 0.0149*           | (0.0060)    | 0.0072            | (0.0072)    |
| Privatization             | −0.4619*          | (0.0360)    | −0.3778*          | (0.0347)    | −0.5353*          | (0.0406)    |
| Risk × Privatization      | −0.1259*          | (0.0136)    | −0.0556*          | (0.0161)    |                   |             |
| Income                    | −0.0056*          | (0.0010)    | −                  |              | −0.0055*          | (0.0010)    |
| Skill                     | 0.0967*           | (0.0418)    | −                  |              | 0.0912            | (0.0419)    |
| Income × Skill            | 0.0040*           | (0.0016)    | −                  |              | 0.0039*           | (0.0016)    |
| Income × Risk             | −0.0001           | (0.0003)    | −                  |              | −0.0001           | (0.0002)    |
| Income × Privatization    | −                  |             | 0.0020            | (0.0011)    |                   |             |
| Age                       | −0.0091           | (0.0199)    | −                  |              | 0.0076            | (0.0200)    |
| Non in labour force       | 0.0185            | (0.0566)    | −                  |              | 0.0181            | (0.0569)    |
| Male                      | −0.3543*          | (0.0471)    | −                  |              | −0.3536*          | (0.0472)    |
| Married                   | 0.2290*           | (0.0513)    | −                  |              | 0.2287*           | (0.0514)    |
| Education                 | −0.0565*          | (0.0190)    | −                  |              | −0.0537*          | (0.0191)    |
| L–P party support         | −0.1935*          | (0.0220)    | −                  |              | −0.1936*          | (0.0221)    |
| Union member              | 0.3030*           | (0.0561)    | −                  |              | 0.2992*           | (0.0561)    |
| Public health spending    | −0.3138*          | (0.0205)    | −                  |              | −0.2869*          | (0.0220)    |
| Intercept                 | 1.3790*           | (0.0536)    | 1.3984*           | (0.0224)    | 1.3741*           | (0.0536)    |
| N                         | 13223             | 13223       | 13223             |             |                   |             |

Note: Significance level: * p < 0.05, two–tailed test.
has a different effect depending on the healthcare institutions, supporting both H2a and H2b.

To help with substantive interpretations, we use the Clarify program in STATA 12 for post-estimation simulation to gauge how risk and privatization together affect the predicted probability of supporting more government healthcare spending (Kam and Franzese 2007; Tomz et al. 2003). In Figure 2b, we predict the probability of supporting more government spending on healthcare using low and high levels of healthcare privatization (i.e., values at the 10th and 90th percentiles) and allowing them to vary across the range of unemployment risk, holding all other variables at their median values. We are interested in evaluating: (1) if there are significant differences in the predicted probability between the high and low values of privatization; and (2) for each of these values, if there are significant differences in the predicted probability across the values of risk. Figure 2b illustrates the indirect effect of institutions more clearly, because support for more government spending is always statistically significantly higher when privatization is low than when privatization is high.
Unemployment risk has substantially different effects on support for government healthcare spending, depending on the healthcare institutions. When privatization is low, the probability of supporting more government spending increases significantly as risk rises, but when privatization is high, unemployment risk decreases the probability of supporting more government spending, for conventional levels of statistical significance. Figures 2b provides consistent support for H2a and H2b.

To further investigate the indirect effect of privatization, in Figure 3 we examine its association with government healthcare preferences for those whose unemployment risks are greater than their country means. We observe a significant negative correlation between privatization and support for more government healthcare spending among high-risk individuals (corr. = −0.4985, p = 0.031). In healthcare systems with very low level of privatization (e.g., the UK and Denmark), most of those (82–88 per cent) who face a high unemployment risk support more government spending on healthcare; however, this same group in highly privatized healthcare systems (e.g., Japan and Switzerland) tend to show a lower level of support for more government healthcare spending. Figure 3 demonstrates that economic hardship may not
inevitably boost support for government action in providing social protection, because depending on the policy institutions, individuals may not find supporting or increasing government assistance in their self-interest.

A quick look at the control variables shows the expected relationships. Income has a negative association, while skill specificity is positively associated with support for more government spending. There also is a significant interaction between income and skill, indicating that people with higher incomes are more likely to support government healthcare spending if they have specialized skills than if they have general skills. We observe positive significant coefficients for both marital status and union membership, while male, education and support for the Right are all negatively associated with support for increasing government healthcare spending. Consistent with Wlezien (1995), we find that individuals’ support for more government health spending is negatively correlated with the status quo level of government healthcare spending in the previous year.

CONCLUSION

Our theory and findings focus on explaining how policy institutions and individuals’ labour/economic situations together shape their preferences for government-provided social protection. In this research, we show how policy institutions can link to micro-level factors and shape policy preferences through institutional ‘feedback’ effects. Policy institutions, through their
coverage and financial rules, make distinctions between individuals, and this variation affects individuals in different ways.

Evidence from our cross-country analysis illustrates how an individual’s unemployment risk affects his preferences for government healthcare spending differently depending on his country’s healthcare policy institutions. In more publicly oriented healthcare systems, preferences for more government healthcare spending increase as the threat of unemployment rises, because respondents are more likely to support policies when they may need and qualify for the benefits. The opposite occurs in more privatized healthcare systems, where preferences for government funding decrease as economic insecurity increases, since expanding government healthcare spending requires raising the costs/taxes to pay for the changes. In this case, individuals would be paying for government assistance that does not directly benefit them, while also needing to pay for their own private healthcare benefits.

Previously, the literature on social policy institutions and policy preferences has focused on explaining the link between welfare states and aggregate welfare support, but here we shift that focus to looking at how social policies relate differently to the labour market. Social policy institutions privatize the compensation of risk in various ways. Building on previous work that highlighted the feedback effects of social policy institutions, we argue that the public–private dynamic of institutions indirectly shapes preferences for government assistance by colouring how individuals calculate their economic risk. We acknowledge that policy institutions are multifaceted and create a new measure of healthcare institutions that demonstrates how policy institutions vary substantially based on their use of public or private mechanisms to compensate individuals for their risk of economic insecurity (Hacker 2004b; Larsen 2008). Showing how social policy institutions affect mass policy preferences by framing how individual-level factors influence preferences, we go beyond the previous literature in highlighting the complex mechanisms of policy feedback.

While our empirical analysis has focused on healthcare policy, our broader argument is generalizable to the larger social policy and mass policy preferences literatures. Policy institutions may interact with various individual-level factors to cause the feedback effect on policy preferences. By moving our argument to other policies that have variation in their public/private mechanisms (such as old-age benefits and active labour-market policies), we would expect these institutional differences to influence how other micro-level factors affect policy preferences. Only by understanding how policy institutions and the labour market affect the heterogeneous groups within the broader audience of public opinion can researchers comprehend the complex politics of welfare states.

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SUPPLEMENTAL DATA AND RESEARCH MATERIALS

Supplemental data for this article can be accessed on the Taylor & Francis website, http://dx.doi.org/10.1080/13501763.2015.1031159

NOTES

1 E.g., Cusack et al. 2006; Iversen 2005; Iversen and Soskice 2001; Korpi 1983; Lipsmeyer and Nordstrom 2003; Margalit 2013; Meltzer and Richard 1981; Moene and Wallerstein 2001; Rehm 2011; Rehm et al. 2012.

2 Previous work focused on broad social policy regime classifications (Jæger 2009; Larsen 2008; Linos and West 2003; Svalfors 1997) rather than acknowledging that preferences can vary across policies.

3 This policy is traditionally characterized by a high level of public support regardless of labour market situations and cross-country differences in policy institutions (Carpenter 2012).

4 While we focus on the economic factors, we acknowledge that others emphasize additional individual-level factors – class, interpersonal relationships, race, ethnicity, altruism (see Rehm et al. [2012] for discussions of the existing approaches).

5 In a comparative study of pensions, Lynch and Myrskyla (2009) ask why they do not create a feedback effect.

6 Others have noted that welfare states produce norms and values that correspond with varying levels of support for social assistance (e.g., Brooks and Manza 2007; Esping-Anderson 1990).

7 Jacobs explains that the relationship between politicians and the public evolved into representation in the UK and the US: ‘In attempting to manipulate public opinion, government officials became more sensitive to popular preferences’ (1992: 212).

8 We include representative samples from 19 countries: Australia; Canada; Czech Republic; Denmark; Finland; Germany; Hungary; Ireland; Japan; Netherlands; New Zealand; Norway; Poland; Portugal; South Korea; Spain; Sweden; Switzerland; and UK. The survey was fielded from 2006 to 2008.

9 Although most prior empirical studies use spending preferences to measure individuals’ attitudes toward the role of government in social policy (for example, see Gingrich and Ansell [2012]; Iversen [2005]; Rehm [2009]), citizens could have high expectations for government responsibility in healthcare, while simultaneously
supporting controlling spending. To examine both aspects of citizens’ preferences, we include a second dependent variable in the Online Appendix: a question on the ISSP that asks respondents’ opinions on whether the government should be responsible for providing care to the sick.

10 In 2008, the OECD launched a survey to collect information on member states’ national healthcare systems. Twenty-nine OECD countries participated in this survey and provided information based on healthcare system characteristics in the previous three years. We use the OECD’s original coding for each institutional indicator. The United States did not participate in the 2008 OECD survey of national health systems. Owing to the lack of comparable US data for estimating a national-level measure of healthcare privatization, we did not include the US as a country case in our analysis.

11 See the Online Appendix for details regarding the privatization scale.

12 We assess occupation-based unemployment rates from the ILO online database of labour statistics, LABORSTA (http://laborsta.ilo.org/). For the data on unemployment, we use the variable 3E (unemployment by occupation), and for the data on employment, we use the variable 2C (employment by occupation). We calculate the total civilian labour force as the sum of the employed and the unemployed.

13 Iversen’s s1 measure is based on individuals’ ISCO-88 occupation classifications and takes into account both the share of ISCO-88 level 4 groups and the share of the labour force. We access data for the skill variable online at http://www.people.fas.harvard.edu/iversen/SkillSpecificity.htm. We assign Iversen’s measurement score to ISSP respondents based on their ISCO-88 occupation codes.

14 These controls are from the ISSP survey data. We code Male as Male = 1 and Female = 0, and Married as Married = 1 and Otherwise = 0. For Education, we use the year of education. The Left–Right measure is a 1–5 scale, where 1 refers to the strongest support for left-wing parties. Union is 1 = currently a union member and 0 otherwise. We recode the variable for people’s work status (WRKST) into a dummy variable with Nonemployed = 1 and Employed = 0. Nonemployed includes the following groups: helping families; home duties; students; retired; disabled; and other people who are not in the labour force.

15 Data are from the OECD Health Data: Healthcare Financing and Expenditure, measured in 2005. One can also address the cross-country heterogeneity by including country fixed effects. The fixed effects specification, however, limits making meaningful inferences about the privatization variable, when it is measured at the country level and invariant within countries (Franzese 2005).

16 The correlation between occupation-based Unemployment Risk and country-level Healthcare Privatization is negative and significant, but near zero (corr. = −0.087, p = 0.000).

17 When using cross-country public opinion data to test the effects of macro-level policy institutions on micro-level preferences, it is important to consider that different cultures, historical backgrounds, or some other unobserved political factors may affect both healthcare privatization and economic protection. In the Online Appendix, we show alternative model specifications that consider country-level heterogeneity – a hierarchical linear model (HLM) and an alternative model with clustering standard errors by country. These alternative models highlight the robustness of our findings regarding the impact of privatization.

18 In Section 1 of the Online Appendix, we test for the potential for reverse causality between privatization and preferences (Brooks and Manza 2007; Campbell 2012; Gingrich and Ansell 2012) and find no evidence for it. In an ordinary least squares (OLS) model using aggregated healthcare preferences to predict the level of healthcare privatization, the coefficient on the variable for aggregated healthcare preferences is near zero (b = −0.037) and statistically insignificant.
Given the symmetrical nature of multiplicative interactions between two independent variables, this specification means that the effect of privatization is contingent on risk (Berry et al. 2012). Because our main theoretical interest is about the effect of risk contingent on privatization, we have relegated the figures for the effect of privatization contingent on risk to the Online Appendix.

Our analysis relies on cross-sectional data to compare how healthcare privatization affects individuals' social policy preferences. This is just a starting point for unpacking the role of social policy institutions in preference formation. A natural extension to our research is to adopt a cross-sectional time-series design (when longitudinal cross-country surveys are available) to generalize evidence based on both cross-country differences in policy institutions and within-country institutional changes.

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