When Do People Support Institutional Change?

Towards a Social-Psychological Theory of Collective Action

Abstract

This research tested the adequacy of a dependence model to predict when people vote for a change in authorities representing them. Based on concepts derived from interdependence theory (Kelley & Thibaut, 1978), this model assumes that people will support institutional change to the extent that they (a) are less satisfied with outcomes provided by these authorities, (b) consider them as less legitimate, (c) perceive better alternatives, and (d) smaller transition costs. Together these four factors are believed to reduce people's loyalty toward the authorities in place, which positively affects their support for change. This social-psychological theory of collective action received considerable support in three separate voting events: (a) the 1992 and (b) 1997 UK general elections, and (c) the 1997 devolution referendum in Wales. The implications of the model for understanding collective action and institutional change in society will be discussed.

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One of the key features of democratic society is that it allows citizens to make concerted efforts to control and replace authorities representing them (Tarrow, 1994). Collective action appears in many different forms (Kinder & Sears, 1985; Marwell & Oliver, 1993), some of which are more or less spontaneous (e.g., strikes, demonstrations, and petitions), while others are more organized and routine events (e.g., elections, public hearings, citizens' juries). Moreover, collective action can be directed at solving small-group problems (e.g., electing a school representative), community problems (e.g., participating in local environmental groups), or larger societal issues (e.g., women and gay right movements). Perhaps the most common and institutionalized form of collective action is voting, for example, in the context of an election or referendum (Kinder & Sears, 1985). Voting enables individual citizens in society to indicate their preference for the kind of authorities and policies they desire. Voting procedures thus contribute to a dynamic political process, whereby societies and communities can make regular changes in the authorities representing them (Buckley, Burns, & Meeker, 1974; Crowe, 1969).

When do people decide to collectively vote for change? Why do people want to keep authorities in place, even though they are dissatisfied with the outcomes they receive? What role do concerns about the legitimacy and fairness of authorities play in people's support for change? Despite the prevalence of collective action in modern society, and its important implications for the welfare of individuals and communities (Kelly & Breinlinger, 1996; Ostrom, 1990; Tarrow, 1994), the above questions have received little attention, at least in social psychology. Traditionally, collective choice issues have been studied predominantly in political science (e.g., Orbell & Dawes, 1991; Ostrom, 1990; Tarrow, 1994; Tilly, 1978), and sociology (e.g., Marwell & Ames, 1979; Marwell & Oliver, 1993; Oliver, 1980). These disciplines tend to emphasize the socio-structural and macro-political antecedents of collective action (e.g., social class, race, political structure). In addition, we need a micro-perspective to look at the actual motivations and perceptions of

individuals deciding to support change (Kelly & Breinlinger, 1996; Klandermans, 1997; Simon, 1998).

There have been some notable contributions from social-psychologists to thinking about collective action and institutional change, for example, in the literature on political action (e.g., Kinder & Sears, 1985; Sears, 1969; Sears & Funk, 1991), relative deprivation (Cook, Crosby, & Hennigan, 1977; Crosby, 1976) and social movement participation (e.g., Kelly, 1993; Kelly & Breinlinger, 1996; Klandermans, 1997; Simon, 1998; Simon et al., 1998). Moreover, social-psychologists have been studying support for institutional change in small group research on social dilemmas (e.g., Messick et al., 1983; Rutte & Wilke, 1985; Samuelson, 1991; Samuelson & Messick, 1986; Samuelson et al., 1984; Sato, 1987; Van Dijk & Wilke, 1995). Finally, some research has looked at people's attitudes and compliance to authorities (e.g., judicial system, police, politicians; Lind & Tyler, 1988; Tyler, 1990; Tyler & Lind, 1992).

Unfortunately, there have been few attempts made to integrate these diverse literatures by developing more generic social-psychological theories of collective action (for a similar critique, see Kelly & Breinlinger, 1996; Klandermans, 1997; Ostrom, in press; Sears & Funk, 1991; Tyler & Dawes, 1993). Current thinking about collective action is still dominated by rational-economic theories (Luce & Raiffa, 1957; Olson, 1965), which regard collective actions, such as voting, as a public good problem (Palfrey & Rosenthal, 1983). This perspective is limited, however, because it cannot account for the ubiquity of collective actions in modern society (i.e., the famous voter's paradox; see also Kelly & Breinlinger, 1996; Kinder & Sears, 1985; Klandermans, 1997). Moreover, it does not say much about the kinds of actions individuals or groups will decide for nor what direction these actions will take. For example, collective action may be directed towards establishing social and institutional change or towards maintaining the status quo (Samuelson & Messick, 1995).

In the present article, we advance a social-psychological model of collective action, which is based on insights and concepts derived from social exchange theory (Homans, 1961; Thibaut & Kelley, 1959) and interdependence theory (Kelley & Thibaut, 1978), two generic social-psychological theories. The model asserts that the key to understanding people's willingness to

participate in collective actions lies in the _relationship_ people have with the authorities representing them. The more dependent people are upon these authorities, the greater will be their loyalty, and the weaker is their support for change. Loyalty is determined by a set of factors, both internal and external to the relationship between the individual and the authority. As a preliminary test of this dependence model, we analyzed people's voting decisions in three events: the 1992 and 1997 general elections in the UK, and the 1997 referendum on the constitution of a Welsh assembly. These events provided a suitable context for testing the model and allowed us to examine two different collective choices: a change in government, and a constitutional change ~ together these are referred to as institutional change.

A Dependence Model of Collective Action

Following interdependence theory (Kelley & Thibaut, 1978; Rusbult & Van Lange, 1996), and adoptions of this theory to various kinds of social relationships (e.g., intimate relationships, employer-employee relationships; Rusbult, 1980; 1983; Rusbult & Farrell, 1983; Simpson, 1987; Van Lange et al., 1997), the model proposes that a fundamental characteristic of the relationship between citizens and authorities is the degree of _dependence_ upon the authorities representing them. This dependence is shaped by specific features of the relationship with the authorities, and is subjectively translated into a feeling of _loyalty_ toward these authorities. Loyalty is a psychological construct which stems from prior theorizing about different public reactions to a decline in political and economic organizations (Hirschman, 1970). It alludes to the attachment of individuals to the authorities representing them, and to a commitment to support them and keep them in place. 1 The dependence model

asserts that feelings of loyalty form an important component of the relation between individuals and authorities, and that they constitute a major obstacle towards institutional change.

Why do people remain loyal to particular authorities, and what determines their willingness to engage in actions to undermine or replace them ? Consistent with interdependence theory, we first propose that the support for institutional change will be shaped by the degree of _satisfaction_ that individuals experience with the _outcomes_ provided by the authorities. These outcomes can be related to people's direct self-interest, the interests of the groups they belong to or identify with, such

as family or ethnic group, or they can concern outcomes for society as a whole ~ as long as these outcomes are meaningful to the individual (Sears & Fink, 1991). Moreover, these outcomes can be positive (in terms of received rewards or income) or negative (in terms of incurred costs). For example, people may be satisfied with the amount of income tax they pay under the current authorities (i.e., a cost), but they may not be satisfied about the level of child support they receive (i.e., a reward). Similarly, in terms of collective outcomes people may be happy about the way authorities tackle crime and vandalism, but unhappy about their efforts to reduce unemployment and clean up the environment.

It is important to note that satisfaction not only involves the <u>actual</u> outcomes people receive, but also the general expectations they have about the outcomes that <u>ought</u> to be provided by authorities representing them (i.e., <u>comparison level</u>; Kelley & Thibaut, 1978; Rusbult & Van Lange, 1996; Thibaut & Kelley; 1959). Indeed, although two individuals may receive exactly the same outcomes, they may differ in their expectation about the services and goods they believe they are entitled to. For example, an inhabitant of a country with a socialist political system will expect more help from the government, and therefore may be discontent more easily than an inhabitant of a country with a capitalist or market system. The distinction between actual and expected outcomes is important, because dissatisfaction may be influenced less by what people have than what they feel they are entitled to (cf. relative deprivation-theory; Cook et al., 1977; Crosby, 1976, Grant & Brown, 1995). Thus, our model hypothesizes that, to the extent that people are less satisfied with the outcomes provided by the current authorities — both personal and collective, actual and expected ~ we expect them to be less loyal and more supportive of an institutional change (<u>Hypothesis 1</u>).

Following interdependence notions, we further assert that the support for change will be determined by the degree of <u>power</u> authorities are thought to have over individuals. In the social-psychological literature, a traditional distinction is made between three forms of power (French & Raven, 1959), with on the one hand, reward and coercive power (i.e., the ability to provide positive and negative outcomes to people), and, on the other hand, legitimate power. <u>Legitimate</u> power refers to the influence authorities have, because they are held in high esteem (identification), and share people's norms and values (internalization; Kelman & Hamilton, 1989; Tyler & Lind, 1992).

In democratic societies, legitimacy is the dominant form of power although authorities use rewards and punishments as well to obtain compliance (Bass, 1990; Tyler, 1990).

The legitimacy of authorities in influencing individuals will vary with perceptions regarding their trustworthiness, the fairness of their rules and procedures, and the similarity of their values with those of the public (Kelman & Hamilton, 1989; Tyler, 1990; Tyler & Degoey, 1995). For example, the government's legitimacy is likely to decrease when people believe it cannot be trusted to protect their interests anymore, when it fails to consider the public opinion, and treats people unfairly and disrespectfully. Thus, the dependence model further asserts that when the legitimacy of authorities declines people will become less loyal and more supportive of institutional change (Hypothesis 2).

Third, it is proposed that collective actions are not only be influenced by characteristics of the relation with current authorities, but also by expectations about relationships with alternative authorities. As in interdependence theory, the dependence model proposes that people are more dependent upon existing authorities to the extent that they perceive no better alternatives (i.e., comparison level of alternatives; Kelley & Thibaut, 1978). The quality of alternatives is likely to be judged along the same two dimensions as the evaluation of current authorities (i.e., in terms of satisfaction and legitimacy). For example, people can be relatively dissatisfied with the government in terms of outcomes and legitimacy, but if they do not expect to be better off under a different government, they will stay loyal despite their discontent. Accordingly, a third prediction derived from the dependence model is that people will be (more) less loyal and less (more) supportive of institutional change to the extent that they perceive poorer (better) alternatives (Hypothesis 3).

According to our model, a fourth and final factor determining the willingness to support change is the perceived costs of moving from one authority structure to another. Every institutional change is likely to entail immediate exit or transition costs (Hirschman, 1970; Kelley & Thibaut, 1978; Ostrom, 1990; Van Vugt, 1997; Yamagishi, 1986). These can be material (e.g., increase in interest rates) or psychological (e.g., uncertainty about the new government's actions). These costs will add negatively to the perceived quality of alternatives (Kelley & Thibaut, 1978; Samuelson & Messick, 1995), and, thus, prevent the support for institutional change. Hence, concerns about

transition costs are believed to affect feelings of loyalty and the support institutional change (Hypothesis 4), but these effects will be indirect rather than direct (Hypothesis 5).

Taken together, our model asserts that people will be more supportive of a change in the authorities representing them to the extent that they (a) are dissatisfied with the outcomes provided by these authorities, (b) consider them less legitimate, (c) perceive better alternatives, and (d) smaller transition costs. Moreover, we have indicated that transition costs add negatively to the perceived quality of alternatives, and therefore will have an indirect rather than direct effect on support for change. These relations can be expressed in the following equations (cf. Rusbult, 1980):

$$\text{Support for Change}_i = \text{Alternatives}_i - (\text{Satisfaction}_i + \text{Legitimacy}_i + \text{Transition Costs}_i)$$

(Equation 1)

$$\text{Alternatives}_i = -\text{Transition Costs}_i$$

(Equation 2)

According to this model these factors contribute to predicting support for institutional change by altering the loyalty toward the authorities in place. Thus, we expect, third, that these dependence factors influence people's loyalty:

$$\text{Loyalty}_i = \text{Satisfaction}_i + \text{Legitimacy}_i + \text{Transition Costs}_i - \text{Alternatives}_i$$

(Equation 3)

Finally, loyalty is expected to mediate the impact of these factors on support for change. Thus, people are less likely to support a change when they feel more loyal to the authorities in place:

$$\text{Support for Change}_i = -\text{Loyalty}_i$$

(Equation 4)

<u>Research Aims and Summary of Hypotheses</u>

As a first test of the dependence model we utilized the model to predict people's voting decisions in the context of two national elections and a local referendum. We chose to focus on voting as a form of collective action for various reasons. First, voting is the most common and organized form of collective action in democratic society. Second, the voting decision is a relatively unambiguous, behavioral measure to indicate whether people support the status quo or support institutional change. Third, voting is a recurrent collective action-event, which makes it possible to examine how these decisions change over time as a result of changes in dependence model factors.

Three separate studies of voting decisions are presented in this article. The first study investigated determinants of voting in the last UK general election in 1997. In the second study we analyzed voting decisions in the 1997 devolution referendum in Wales, whereby people in Wales could indicate their support for a constitutional reform to create their own assembly. In a third study, we conducted a post-hoc analysis of an existing dataset of voting attitudes and behaviors during the 1992 general elections (Heath, Jowell, Curtice, Brand, & Mitchell, 1993). The following set of hypotheses were tested in these studies (i.e., note that not all hypotheses could be tested in each study). The first set of hypotheses addressed the determinants of people's support for institutional change (Equations 1 and 2). People were believed to be more supportive of change to the extent that they (a) were less satisfied with the outcomes provided by the authorities (<u>Hypothesis 1a</u>), considered them less legitimate (<u>Hypothesis 2a</u>), perceived better alternatives (<u>Hypothesis 3a</u>), and smaller transition costs (<u>Hypothesis 4a</u>). Moreover, the link between transition costs and support for change was expected to be indirect rather than direct, with the size of transition costs adding negatively to the quality of alternatives. Hence, the effect of transition costs was expected to be mediated by the perceived quality of alternatives (<u>Hypothesis 5a</u>).

The second set of hypotheses addressed the impact of the dependence model factors on the loyalty to the authorities (Equation 3). Loyalty was expected to be stronger to the extent that people were more satisfied with their present outcomes (<u>Hypothesis 1b</u>), considered the present authorities as more legitimate (<u>Hypothesis 2b</u>), perceived poorer alternatives (<u>Hypothesis 3b</u>), and greater

transition costs (Hypothesis 4b). Similar to the above, the impact of transition costs on loyalty was believed to be indirect, and was expected to be mediated by the quality of alternatives (Hypothesis 5b).

Our final hypothesis concerned the role of loyalty as a mediator of the support for institutional change. Following Equation 4, it was predicted that by adding loyalty as predictor of the support for change the effects of the four dependence factors (i.e., satisfaction, legitimacy, quality of alternatives, transition costs) would disappear or (at least) become substantially weaker (Hypothesis 6).

Introduction to Study 1

In Study 1 we analyzed voting decisions made during the recently held general elections in Britain in May 1997. It was a two-wave study, whereby the first wave took place before the elections and the second wave shortly after. Approximately two months prior to election date a telephone survey was carried out among a subsample of the British electorate. They were interviewed about their satisfaction with the government in place, its legitimacy, their perception of alternatives, transition costs, and their loyalty to the government. In the week after the elections were held, these same people were contacted again to ask them about their vote.

Context of Survey. The general elections were held on the first of May 1997 which was the end of a six year period of government by the Conservative party headed by prime-minister John Major. The Conservatives had been in power for nearly two decades, having defeated their direct opponents, the Labour party, in three consecutive elections, 1979, 1983, and 1992. In the years preceding the 1997 elections the Labour party had been transformed into "New Labour" under the leadership of Tony Blair, and was now seen as a serious challenge to the Conservatives. This proved to be right. The results of the election showed an overwhelming victory for the Labour party, and a major defeat for the ruling Conservative government. Within this context we provided the first test of our dependence model.

Participants. The study was based on a random sample of 500 residents in the United Kingdom. These were contacted by telephone, and their phone numbers were randomly selected by a specially designed computer program, which utilized a two-step procedure. In the first step, the

program determined residential prefixes by generating series of 4 and 5 number digit codes (i.e., telephone numbers of larger UK cities, such as London, all consist of 4 digit prefixes, whereas the rest contain five numbers). Because this procedure produced too many non-existing area codes, we specified in the program the range of possible numbers for each digit as was outlined in the 1997 BT Phonebook Companion of the U K. Once a valid prefix was obtained, the computer generated lists of seven (for 4 number prefixes) and six number digits (for 5 number prefixes) as telephone connections, after specifying the range of valid connections in particular areas (again as indicated in the BT Phonebook Companion).

This resulted in a list of 500 valid telephone entries. These were contacted during weekdays between 5.30 and 8.30 p.m. in the two months prior to election date by one of three interviewers who had received specific training for conducting telephone surveys. Out of 500 potential respondents, interviews were completed with 277 people (55.4%), 256 of whom were registered as voter in the Electoral register (i.e., some households were contacted several times before an interview could take place). These latter people were contacted again a few days after election day to ask about their voting decision. A second interview took place with 229 people, resulting in an ultimate sample of 210 people by excluding people who did not vote. This sample showed a wide variety in demographic characteristics, such as age, gender, income, education, and geographical location.

Procedure

After a telephone contact had been established, the interviewers introduced themselves as students from the University of Southampton who were assisting with a survey about opinions towards the national government in light of the forthcoming general elections. It was explained to people that their telephone number was randomly picked by a computer. Before proceeding with the instructions, the interviewer inquired whether the contacted person was in fact registered as voter on the electoral roll. If this was not so, and there were no other registered voters at home, the connection was terminated.

The interviewer then asked whether the person was willing to participate in an interview. It was stated that the interview would take about 15 minutes to complete and that all answers would be

treated confidentially. Participants were further told they could stop the interview at any time they wished. None of the selected participants refused, but for some the interview took place at a later stage upon their convenience. After the interview had finished, the participants were asked if they would mind being contacted again for a short interview after the elections. Five people refused to further participate.

First interview. The interview consisted of two sections of response items. In the first section, statements were given about people's satisfaction with the current Conservative government, their perceptions of alternatives, the legitimacy of this government, and the perception of the costs of a transition to a new government. This section also contained items addressing how loyal people considered themselves to be to the current government. All items were presented in the form of statements, rated on four-point Likert type scales, ranging from 1 (strongly agree) to 4 (strongly disagree). Respondents were also offered a "no opinion" and "refusal" option and these were treated as missing data in the further analyses. The second section included items referring to demographic characteristics (e.g., age, gender, profession), their voting intention, and preference for a political party.

Second interview. A few days after election day these people were interviewed again by the same interviewers about their voting decision in the last general election.

Dependent measures. The following items were used as indicators of the dependence model constructs in Study 1.

Satisfaction with government. This was measured by seven statements referring to people's satisfaction with outcomes provided by the government, containing both personal and collective outcomes. The scale included both general and specific elements of satisfaction: "I am generally satisfied with the current government" "This government is good for me personally" "This government is good for society as a whole" "Under this government my personal wealth has increased" "Under this government the wealth in society has increased (e.g., more jobs, better economy)" "All things considered I am quite happy with this government" and "In terms of satisfaction this government comes close to my ideal."2

Legitimacy of government. The legitimacy of the Conservative government was assessed by five items referring to various elements of legitimacy of authorities, including perceptions of their trustworthiness, fairness, and identification (Tyler & Lind, 1992): "This government can be trusted to protect my interests" "I identify myself with this government" "People have a say in the decisions of the government" "I accept the decisions of this government" "This government treats people fairly and with respect."

Quality of alternatives. The extent to which participants perceived better alternatives for the current government was measured by the following five statements: "All things considered, a different government compares favorably to this one" "The expectation of a different government appeals to me" "A different government will be better for me personally" "A different government will be better for our society" "A different government will treat people with more respect."

Transition costs of change. The following three items measured the perceived transition costs of a change in government (adopted from Van Vugt, 1997): "A change in government will bring many costs to our society" "... will create a lot of uncertainty" "...will be a slow and painful process."

Loyalty to government. The degree of loyalty to the Conservative government was assessed by the following statements: "I am committed to this government" "I feel somewhat dependent upon this government" "I see it as my duty to support this government" "All things considered I would be disappointed if this government were to leave" "I am not hoping for this government to stay any longer" (inversely coded).

Support for change. This outcome variable was measured at the second interview by asking people what political party they voted for in the general election: "Could you please indicate what political party you have voted for in the last general election." (1 = Conservatives, 2 = Labour, 3 = Liberal Democrats, 4 = Other party, 7 = I did not vote, 9 = refusal to answer). As a measure of the support for change, we combined the Labour, Lib-Democrats, and Other-voters to form one group of voters (N = 146) and contrasted them with voters for the ruling Conservative party (N = 64). Those who did not vote or refused to indicate their decision (N = 19) were removed from

further analyses. Preliminary analyses revealed that these categories of respondents did not differ systematically from the ultimate sample in their ratings of dependence model factors.

Confirmatory Factor Analyses. We conducted a confirmatory factor analysis to determine the validity of the model including the five theoretical constructs determining support for institutional change (i.e., loyalty, satisfaction, legitimacy, quality of alternatives, transition costs). Accordingly, a covariance matrix was computed over the 25 items using a pairwise deletion of missing values. The theoretical model was estimated by using the maximum likelihood criteria in EQS (Bentler, 1990). First, we tested a model in which no correlations were allowed between the factors, but this model did not converge (comparative fit index = 0.73). A comparative fit index (CFI) of .90 or higher is generally seen as an indication of a good fit (Bentler, 1990). On theoretical grounds, however, we expected several constructs in our model to correlate substantially (e.g., links with loyalty), and therefore these links were set free in the second model. This model described the data remarkably better yielding an acceptable comparative fit index of .93. Inspection of the individual items revealed that one item yielded a factor loading smaller than .50 ("I am not hoping for this government to stay any longer"); accordingly, this item was removed from further analyses. Subsequently, the 24-item model was tested again and this improved the comparative fit index to .93.

We also tested the goodness-of-fit of alternative and more parsimonious models to describe the data. The results of these confirmatory analyses showed that our a priori model (i.e., loyalty, satisfaction, legitimacy, quality of alternatives, transition costs) provided the best possible fit of the data compared to alternative models which combined various constructs together.3

Finally, we performed reliability and correlational analyses on the dependence factors. All constructs yielded good reliabilities (i.e., with alphas varying from 0.81 to 0.93); hence, for each measured construct we developed a single score based upon the average score across the items. The correlations between these factors were substantial indicating problems of multicollinearity (see General Discussion). The correlations with loyalty varied from -0.85 (for alternatives) to 0.83 (for satisfaction). The correlation coefficient for alternatives and satisfaction amounted to -0.52, for

alternatives and legitimacy -0.65, and for satisfaction and legitimacy 0.63. Perception of transition

costs correlated moderately with other factors (i.e., the highest with alternatives: r = -0.54).

Results and Discussion

Predicting support for change from the dependence model factors. To test the adequacy of the dependence model in predicting the support for change (i.e., Hypotheses 1a to 5a; see Equations 1 and 2), we conducted both correlational and regression analyses whereby we regressed the voting decisions onto the four dependence factors, satisfaction, legitimacy, quality of alternatives, and transition costs. The outcome measure, support for change, was obtained at the post-election interview and, for purposes of analysis, was transformed into a binary choice (1 = vote for change [N = 146]; 2 = vote for Conservative government; N = 64). We first conducted a logistic regression analysis upon these data. Because the results of this analysis, however, lead to similar conclusions as those obtained with a normal linear regression model, we will only present the results of the latter more comprehensive analysis here (i.e., for a similar procedure, see Rusbult, 1983).

The results, which are presented in the upper half of Table 1, show that the four factor model (satisfaction, legitimacy, alternatives, transition costs) predicted people's voting decisions reasonably well, $F(4,206) = 52.49$, $p <.001$, accounting for 57% of the variance. When we included various demographic factors into the equation (age, gender, and vote in the previous election), we found that only gender made an additional unique contribution to predicting voting decisions (Beta $= -0.11$, $p <.05$; R^2-change = 3%) with females being more likely to support institutional change than males. Age (Beta $= 0.03$), and people's vote at the previous election (Beta $= -0.05$) did not contribute significantly to the voting decision.[4]

In testing the hypotheses derived from the dependence model, the results first yielded an association between satisfaction and the support for change, Beta $= -0.31$, $t(209) = -3.26$, $p <.01$. In support of Hypothesis 1a, people were more likely to vote for change (i.e., a lower score) to the extent that they were less satisfied (i.e., a higher score) with their outcomes under the current government.

In support of Hypothesis 2a, we also obtained a link between legitimacy and support for change, Beta $= -0.16$, $t(209) = -1.99$, $p <.05$, indicating that people were more likely to support change when the current government was perceived as less legitimate.

The regression analysis further yielded a significant relationship between the perceived quality of alternatives and support for change, $\underline{Beta} = 0.30$, $\underline{t}(209) = 3.60$, $\underline{p} < .001$. Consistent with Hypothesis 3a, people were more supportive of institutional change to the extent that they perceived better alternatives for the present government.

Furthermore, in Hypothesis 4a we predicted a link between transition costs and support for change. However, there was no direct impact of transition costs on support for change, $\underline{Beta} = -0.05$, $\underline{t} < 1$. Yet, we believed that the link between transition costs and support for change might be indirect rather than direct because it would be mediated by the perception of alternatives (Hypothesis 5a). Both factors, transition costs and quality of alternatives, were indeed substantially correlated ($\underline{r} = -0.56$, $\underline{p} < .001$). More importantly, when we removed quality of alternatives as predictor from the equation, this three factor model revealed the predicted association between transition costs and support for change, $\underline{Beta} = -0.13$, $\underline{t}(209) = -2.37$, $\underline{p} < .05$. In support of Hypothesis 5a, these findings thus indicate that expectations about transition costs influenced the support for change via influencing the perception of alternatives.

Taken together, these findings provide good evidence for the adequacy of the dependence model factors in predicting people's voting decisions (see Equation 1). Whether people supported institutional change was influenced by their satisfaction and legitimacy concerns as well as by the perception of better alternatives (i.e., Hypotheses 1a to 3a). Moreover, the support for change also varied with expectations about the transition costs of the change (Hypothesis 4a), but this effect was indirect rather than direct (i.e., via the perception of alternatives), which is in support of Hypothesis 5a (see Equation 2).

Predicting loyalty from dependence factors. To test the predictions regarding the role of loyalty in the support for change (see Equations 3 and 4), we performed various correlational and regression analyses. The results of the correlational analyses are summarized in the middle part of Table 1, and they will be discussed in combination with the findings from the regression analyses. First, to examine hypotheses about the influence of the dependence model factors in shaping loyalty (Hypotheses 1b to 5b; Equation 3), we regressed loyalty onto the four factors, satisfaction, legitimacy, quality of alternatives, and transition costs. The dependence model overall provided a

fairly accurate prediction of loyalty by accounting for 79 percent of the variance in this measure, $F(4,206) = 202.15, p < .001.$[5]

Consistent with Hypothesis 1b, the analysis revealed an association between satisfaction and loyalty, Beta = 0.21, $t(209) = 3.16, p < .005$. Table 1 indicates that people were more loyal to the government to the extent that they were more satisfied with their outcomes.

Moreover, the regression analysis revealed a significant link between legitimacy and loyalty, Beta = 0.28, $t(209) = 4.92, p < .001$. In support of Hypothesis 2b this result indicates that people's loyalty to the government was greater when they perceived the government to be more legitimate (see Table 1).

Third, the analysis revealed a significant association between the perception of alternatives and loyalty (i.e., Hypothesis 3b), Beta = -0.45, $t(209) = -7.76, p < .001$. As expected, people reported to be more loyal when they perceived poorer alternatives for the present government.

Fourth, we anticipated that loyalty would be affected by the expected size of the transition costs (i.e., Hypothesis 4b). Although this association was not statistically significant, Beta = 0.02, $t < 1$, n.s., the correlational analysis did reveal a positive zero-order correlation between transition costs and loyalty ($r = 0.50; p < .001$). It was expected that the link between transition costs and loyalty might be indirect rather than direct, because the size of transition costs might negatively influence the quality of alternatives. Some evidence for this mediational hypothesis (i.e., Hypothesis 5b) was found in the correlational analysis, which showed a substantial negative association between transition costs and quality of alternatives, $r = -0.54, p < .001$.

To provide further support for this hypothesis, we performed an additional regression analysis whereby we regressed loyalty upon the dependence factors with the exclusion of quality of alternatives as a predictor. In line with our hypothesis, this analysis showed that when quality of alternatives was removed from the analysis, the link between transition costs and loyalty turned out to be significant, Beta = 0.09, $t(209) = 2.25, p < .01$.

In addition to findings concerning the support for change (Hypotheses 1a to 5a), these results provide further support for hypotheses derived from the dependence model with positive links between loyalty, on the one hand, and satisfaction and legitimacy, on the other hand

(Hypotheses 1b and 2b). Moreover, in support of Hypothesis 3b, loyalty was associated with a weaker quality of alternatives. Finally, although there is no direct link between loyalty and transition costs (i.e., Hypothesis 4b), there is evidence that transition costs indirectly affect loyalty by contributing negatively to the quality of alternatives (i.e., Hypothesis 5b).

Loyalty Mediating Between Dependence Factors and Support for Change

In our final regression analysis we examined the mediating role of loyalty in explaining the decision to vote for institutional change (i.e., Hypothesis 6; see Equation 4). Evidence for this mediational hypothesis would be obtained if by adding loyalty to the equation the links between the dependence model factors and voting decisions would either fully disappear or become substantially weaker. To test mediation, we performed model comparison analyses (Cramer, 1972), whereby in Model 1, voting was regressed onto loyalty, and in Model 2, voting was regressed simultaneously onto loyalty and the dependence factors (satisfaction, legitimacy, alternatives, transition costs). The lower part of Table 1 summarizes the results of these analyses. The analysis of Model 1 first revealed a strong negative association between loyalty and voting for change, $Beta = -0.73$, $t(209) = -15.25$, $p < .001$, with loyalty accounting for 51% of the variance. This indicates that people who were less loyal to the government were more supportive of institutional change.

Importantly, the comparison between the Model 1 and Model 2 analyses showed that the four dependence factors accounted for some unique variance over and above loyalty (i.e., comparison of Model 2 to Model 1; $F(4, 205) = 9.35$, $p < .001$). However, the strength of the relations between these factors and the support for change decreased considerably when loyalty was added as predictor. That is, legitimacy no longer contributed to predicting support for change, whereas the contributions of satisfaction and alternatives remained significant but the size of the associated beta-weights dropped substantially. Moreover, although the impact of loyalty declined somewhat in Model 2, it was still the strongest predictor of support for change (see Table 1). These results are thus in partial support of Hypothesis 6 by showing that loyalty mediates the relation between dependence factors and support for change. Yet, there is no evidence of complete mediation, and the dependence factors (satisfaction, quality of alternatives) still determine independently whether people supported institutional change.

Introduction to Study 2

Study 1 reveals good support for predictions derived from the dependence model regarding the correlates of support for institutional change (i.e., satisfaction, legitimacy, alternatives, transition costs; Hypotheses la to 4a), and loyalty (Hypotheses lb to 4b) in the context of electing a new national government. Furthermore, Study 1 shows that the links between the expected transition costs and support for change (Hypothesis 5a), and between the expected transition costs and loyalty (Hypothesis 5b) are indirect rather than direct, and are mediated by the perceived quality of alternatives. Finally, Study 1 provides some evidence that loyalty intervenes, at least partly, between the effects of dependence model factors on the support for change (Hypothesis 6).

Study 2 complements Study 1, first, by testing the validity of the dependence model in predicting a different form of collective action, voting in a referendum. In the summer of 1997, referenda were held in both Scotland and Wales, whereby local residents were given the option to vote for or against a constitutional reform that would give these areas some degree of self-government within the UK. The first referendum was held in Scotland, where a vast majority of residents (74.3%) voted "yes" to the constitution of a Scottish assembly. Our study is conducted in the subsequent referendum in Wales where the support for a constitutional change was believed to be more mixed. The Welsh referendum thus provides a suitable context for a retest of hypotheses regarding the correlates of the support for institutional change (satisfaction, legitimacy, alternatives, transition costs; Hypotheses la to 5a; see Equations 1 and 2). This environment is less appropriate, however, for retesting hypotheses regarding the mediating effects of loyalty (Hypotheses lb to 5b, and 6; see Equations 3 and 4) as there was no comparable authority structure in place before the referendum other than the national UK government. After the constitutional reform, Wales would still be part of the UK, and so Welsh residents would remain dependent upon the national authorities (e.g., in terms of taxes, the health and educational system).

A second extension of Study 2 is that we examined a potential moderator of the relationship between the dependence model factors and the support for institutional change: people's attachment to their community. To this end, we compared the evaluations and voting decisions of residents in Wales who were born there with those who were born outside Wales. We expected native Welsh to

be generally more supportive of the constitutional reform than non-native Welsh as the reform would give them voice and self-determination (i.e., these qualities shape people's pride and identification with groups; Tyler & Lind, 1992). Moreover, we anticipated them to support the change, primarily because of the longer term prospects of having a more legitimate (legitimacy) and better qualified government (alternatives). In contrast, the non-Welsh group of voters were expected to look at the change primarily from a short-term perspective, judging it in terms of the immediate costs involved in setting up a new government (transition costs).

Context of survey. The referendum in Wales was held on 18 September 1997. All residents of Wales of 18 years and above were eligible to vote, and could do so by attending one of the numerous polling stations throughout Wales. On the voting form people were simply asked whether they agreed ("yes"-vote) or disagreed ("no"-vote) with the constitution of a Welsh assembly. On aggregate, the majority of people supported the constitutional reform, although the margin was very small (yes: 50.3%; no: 49.7%). In spite of this and in spite of the low voters' turn-out (50.1%), the constitutional change was accepted, and Wales would get a Welsh assembly although its powers were much weaker than its counterpart in Scotland.

Participants and procedure

The study was conducted via telephone interviews with 250 residents of Wales who were contacted in the week after the referendum. Telephone numbers were obtained through the BT Phonebook Companion, which specifies the range of area codes and connections in the UK. We first selected all possible prefixes in Wales, and then used a random digit computer program to generate a list of telephone connections. However, this procedure failed to produce sufficient telephone entries that were valid. As an alternative procedure, we used the BT CD-Rom with all existing UK residential telephone connections, and specified the area codes in Wales. We then picked blindly a list of 200 surnames from the telephone directory of Southampton, and combined each name with a randomly selected area code in Wales. This produced a valid telephone entry for residents under that surname in the area. In case there were more entries under that surname we selected the first entry that appeared on the screen. To illustrate this procedure, based upon a blind search in the telephone book of Southampton the surname Jones was picked. From the list of

available area codes in Wales the area code of Cardiff was selected (01222). In the BT CD Rom program we then specified the area code and typed in the name Jones, which generated a list of telephone entries. We then picked the first Jones of the list to obtain a connection (e.g. 01222-495819).

The 250 addresses were contacted in the week after the referendum on weekday nights from 6.30 until 9 p.m. by one of three experienced interviewers. A contact was made in 158 cases out of which 148 interviews were completed (i.e., there were a few refusals, and in some instances the interview was canceled because the contacted person had not been eligible to vote in the referendum).

Interview. The interview procedure was similar to the one used in Study 1 with a few notable exceptions. At the beginning of the interview, people were asked if they had been eligible to vote in the Welsh referendum. The interview was terminated if there was no eligible voter available in the household at that particular moment. Subsequently, we asked people if they had voted in the referendum, which was confirmed by 104 people or 70 % of the sample, which was actually higher than the general attendance rate at the referendum (50%). The 44 participants who did not vote were also asked to complete the interview for reasons of comparison; they received the same questions at the voters.

Dependent measures.

Support for constitutional change. After the initial questions, the people who voted were asked whether the respondents were asked what they had voted in the referendum (1 = yes [indicating support for the constitutional reform], 2 = no [indicating no support for the reform]). Out of 104 voters, 48 had voted for the reform (46.2%) and 56 (53.8%) against. Thus, compared to the result in the general population, the no-voters were slightly overrepresented in the sample.

Dependence model factors. The statements used to measure the dependence model factors were rated on four point Likert-scales (1 = strongly agree to 4 = strongly disagree, 8 = no opinion, 9 = refusal), and they were roughly similar to the ones used in Study 1.

Satisfaction with previous situation. This was measured by the following five items: "In terms of my satisfaction, the political situation before the referendum outcome came close to my

ideal" "All things considered I was quite happy with the political situation as it was before the referendum" "Wales benefited from the political situation as it was" "The political situation as it was good for me and my family" "There was no need for a political reform in Wales."

Legitimacy of institutional change. To measure legitimacy, participants were asked to rate the following six items referring to the situation after the institutional change (i.e., with a national assembly for Wales): The assembly will have a lot of influence on the people in Wales" "The assembly can be trusted to protect my interests" "I identify myself with the assembly" "The assembly will treat people in Wales fairly and respectfully" "The assembly will have hardly any power in society" (inversely coded) "People in Wales will have a say in the decisions of the assembly."

Quality of alternative. The extent to which people rated the alternative for the old political situation as attractive was measured by the following five items: "The expectation of a Welsh assembly appeals to me" "A Welsh assembly will be better for Wales" "A Welsh assembly is better able to solve the social problems in Wales" "The assembly will do good to me and my family" "All things considered the political situation with an assembly compares favorable to the old one"

Transition costs. This was measured by four items: "The devolution process will bring many costs to Welsh society" "The devolution will create a lot of uncertainty in Wales" "The money needed to build up an assembly could be spent much better" "The devolution process will be slow and painful."

Attachment to Wales. Participants were then asked about their affinity with Wales and Welsh society. First, as a more objective measure of attachment, we asked if they were born in Wales (1 = yes, 2 = no). Moreover, to get a more subjective account we used the following items: "I identify myself strongly with Wales" "I speak the Welsh language well" "I will always try to stay in Wales" "I have many friends who are born in Wales" "I am proud of Welsh culture."

Socio-demographic variables. At the end of the interview, participants were asked about their gender, age, occupation, and their preference for a political party.

Descriptive statistics. We calculated the means, standard deviations, and scale reliabilities for the four dependence model constructs as well as for the attachment-measure. All constructs

produced a good internal consistency -- with alphas ranging from 0.83 to 0.95 -- and a good variety in scores. As in Study 1, the dependence model constructs correlated considerably with each other (r's varying in strength from .34 to .85). The subjective measure of attachment was less reliable (alpha = 0.58), and could not be further improved by deleting one or more items. Therefore, instead of using this measure, we used the place of birth as a more objective indication of people's attachment to Wales.

Results and Discussion

Predicting support for change from the dependence model factors. To test the adequacy of the dependence model in predicting the support for the constitutional change (i.e., Hypotheses 1a to 5a; see Equations 1 and 2) we conducted a regression analysis, whereby we regressed voting decisions (1 = support for the constitutional change, 2 = no support) onto the four dependence factors, satisfaction, legitimacy, alternatives, and transition costs. As in Study 1, we will report the results of the linear regression analysis rather than the less comprehensive logistic regression model. Both analyses, however, produced essentially the same results. The four factor dependence model accounted for 73% of the variance in voting decisions, $F(4,99) = 69.98$, $p < .001$.

Contrary to the prediction in Hypothesis 1a, however, there was no evidence for a link between people's satisfaction with the current political situation and their support for the constitutional change, Beta = 0.06, $t(102) < 1$. Yet, the zero-order correlation ($r = -.63$, $p < .001$) revealed that the relation between the two variables was in the predicted direction.

As expected, support for change was linked to the legitimacy of the change, Beta = 0.29, $t(102) = 2.97$, $p < .01$, indicating a greater support for change when people considered the constitutional reform to be more legitimate (Hypothesis 2a).

Moreover, independent from other factors the support for change was positively related to the perceived quality of the alternative (i.e., a Welsh assembly), Beta = 0.37, $t(203) = 3.01$, $p < .001$ (Hypothesis 3a).

Finally, there was evidence for a direct link between transition costs and support for change, Beta = -0.32, $t(203) = -3.96$, $p < .001$: the greater the expected transition costs the weaker would be people's support for the constitutional change (Hypothesis 4a).

According to Hypothesis 5a, quality of the alternative would mediate the effect of transition costs on support for change. Although there was a strong effect of transition costs on the alternative quality (Beta = -0.77, p <.001), excluding alternatives as a predictor from the regression model did not strengthen the impact of transition costs. Thus, rather than contributing to support for change indirectly via influencing the attractiveness of the alternative (Hypothesis 5a), concerns about transition costs directly influenced whether people supported or opposed the constitutional change.

The role of attachment in predicting support for change. To explore how social identification processes would influence collective action, we compared the voting decisions and dependence evaluations of native Welsh with those of non-native Welsh.

First, a crosstabs analysis revealed that among native Welsh a majority of people (54.3%) supported the constitutional change, whereas only a minority of non-native Welsh did (29.4%), χ(1, $\underline{N}$ = 103) = 5.70, p <.05.

Second, we conducted a MANOVA on the four dependence model scores to compare the evaluations given by these two residential groups. This analysis revealed a significant multivariate effect, $\underline{F}$(4,99) = 6.98, p <.001, thus indicating a systematic difference between the two groups in their dependence model scores.

A significant univariate effect was obtained for the perception of alternative, $\underline{F}$(1,103) = 5.94, p <.05, indicating that native Welsh rated the political situation to be as more attractive ($\underline{M}$ = 2.21, $\underline{SD}$ = 0.83) than the non-native Welsh ($\underline{M}$ = 2.99, $\underline{SD}$ = 0.74). No further significant differences were obtained between the evaluations of these groups, although the means for each construct were in the predicted direction (i.e. the native Welsh were generally less satisfied, considered the constitutional change as more legitimate and less costly)

Having established a difference between these residential groups in the support and determinants of the constitutional change, we then examined if these evaluations would differently predict their actions. Hence, we performed two separate regression models, one for the native Welsh and the other for the non-native Welsh. This resulted in some interesting differences.

First, for the native Welsh, the dependence model accounted for 81% of the variance in voting decisions, $F_{(4,65)} = 76.38$, $p < .001$, whereas for the non-native sample the model accounted for just over 65% of the variance, $F_{(4,29)} = 16.66$, $p < .001$.

Interestingly, for the native Welsh sample the only significant contributor to predicting support for change was the perceived quality of the alternative, Beta $= 0.69$, $t_{(68)} = 4.95$, $p < .001$, The other dependence factors failed to contribute uniquely (satisfaction, legitimacy, transition costs; respective Beta's $= -0.15, 0.10,$ and 0.00), indicating that the support for change among this group was predominantly instigated by the attractiveness of the constitutional reform.

Conversely, for the non-native sample the only factor accounting for substantial differences in support was the size of transition costs, Beta $= -0.67$, $t_{(32)} = -4.54$, $p < .001$. No significant contributions were made by the other factors, satisfaction (Beta $= -0.01$) and alternative (Beta $= -0.07$), although there was a marginal effect for legitimacy (Beta $= 0.31$, $p < .10$). Thus, for the non-Welsh residents the support for change was primarily affected (in a negative way) by the expected size of the transition costs, and, to some extent, by the perceived legitimacy of the change.

Introduction to Study 3

To further assess the validity of the dependence model we performed a post-hoc analysis of the British General Election Survey in 1992 (Heath et al., 1993). This crossectional survey is based on face-to-face interviews with a nationally representative sample of 3534 voters recruited via the Electoral Registers. The survey thus provides a good opportunity to retest our hypotheses within a similar context as in Studies 1 and 2, but with a more substantial, and potentially more heterogeneous sample of participants. Other arguments for using this survey were that it allowed us to reexamine the dependence model with a different research procedure (i.e., face-to-face rather than telephone interviews), and with different operationalizations of the constructs under investigation. For example, satisfaction with the present government was assessed by a series of items referring to the social and economic situation since the last general election in 1987 ("Since the last election do you think that prices have increased or fallen?"). Moreover, to test the mediating role of loyalty an index of loyalty was created by combining various questions. Unfortunately, however, the survey did not contain any questions referring to the legitimacy of the government or to the transition costs

associated with a change. Hence, in Study 3 we could only test part of the dependence model, including predictions regarding the role of satisfaction (Hypotheses 1a and 1b), and quality of alternatives (Hypotheses 2a and 2b) on loyalty and the support for change. We also tested the prediction regarding the mediating influence of loyalty (Hypothesis 6; see Equation 4).

Method

Context of study. The interviews were held shortly following the 1992 general elections in the UK. The elections were held in April 1992, and they turned out into a neck-and-neck race between the ruling Conservatives and Labour. The Conservatives, headed by John Major as the prime minister to-be, won the elections by a narrow margin of 65 seats (336 vs. 271).

Participants and procedure. The sample initially contained 5232 names drawn from the Electoral registers in the UK by a probability sampling technique (see for further details about the procedure, Heath et al., 1993). Face-to-face interviews were completed with 3534 participants (68% of the original sample), 46.7% men and 53.3% women with a median age range in between 45 and 54 years. Preliminary tests revealed that the sample was highly mixed in terms of demographic characteristics such as gender, age, income, education, and geographical location.

Selected questions. Based upon the original questionnaire we made a selection of questions relevant to the present study.

Demographics. The demographic make-up of the sample was assessed by questions referring to people's age, gender, income, educational status, and geographical location.

Support for change. The following question was asked in the survey: "Which party did you vote for in the general election?" The scores on this question were recoded so that a score of 1 reflects support for the present government (i.e., the Conservatives), and a score of 2 the support for change by a vote to one the alternative parties (Labour, Liberal Democrats, Scottish National Party, Green Party etc.). People who did not vote ($N = 358$) or who refused to disclose their vote ($N = 74$) were excluded from the analyses.

Satisfaction with government. This variable was construed out of answers to a series of Likert-type questions referring to the situation under the last government: "Since the last general election in June 1987 would you say that prices have increased or fallen?" (1 = increased a lot, 2 =

increased a little, 3 = stayed the same, 4 = fallen a little, 5 = fallen a lot) "...unemployment...?" "...taxes...?" "...health services...?" (inversely coded) "...crime..."? "...quality of education...?" (inversely coded) "...Britain's safety from the threat of war...?" (inversely coded) "...strikes...?" "...own standard of living...?" (inversely coded) "...general standard of living...?" (inversely coded). A reliability analysis showed an initially moderate alpha-coefficient of 0.61 which could be improved to 0.67 by deleting items regarding strikes and the threat of war. These items were apparently less important in the 1992 election campaigns. From the remaining items the average was calculated to obtain a satisfaction-index.

Quality of alternatives. The perception of alternatives for the present government was assessed by creating a composed score of answers to various statements about the two major alternative parties involved in the election: Would you describe the (Labour party, Liberal democrats) nowadays as extreme (1) or moderate (2)? ... good for one class (1) or for all classes (2)? ... united (1) or divided (2)? ...capable (1) or not capable (2) of strong government? ...caring (1) or uncaring (2)? (i.e. the latter three item responses were inversely coded). The ratings given to these parties were then added up so that the minimum score of this scale amounted to a score of 10 and the maximum score amounted to a score of 20.

Loyalty to government. This was assessed by combining the answers to two questions that were recoded for the purpose of the analysis: (1) "Do you in general lean towards a particular party, and if so, which party?" (-1 = rest; 1 = Conservatives); (2) How strongly or weakly do you lean towards this particular party (1 = very weakly, 5 = very strongly). The scores to these questions were multiplied so that a low score (minimum -5) reflects a weak loyalty to the present government, and a high score (maximum +5) reflects a strong sense of loyalty.

Results & Discussion

Predicting support for change and loyalty from dependence factors. In a first regression analysis, we regressed people's voting decisions (1 = support for present government, 2 = support for change) onto the two measured dependence factors, satisfaction and alternatives. These factors explained 36.3% of the variance in voting, $F(2,2955) = 843.72$, $p < .001$.[6] The individual beta-weights indicated that, in support of our hypotheses (Hypotheses 1a and 3a), people were more

likely to support an institutional change to the extent that they were less satisfied with their outcomes under the present government (Beta = -0.44, p <.001), and perceived better alternatives (Beta = 0.30, p <.001).

Subsequently, we tested hypotheses regarding the correlates of loyalty. Accordingly, we regressed the loyalty score (i.e., a higher score indicates a greater loyalty) onto the two measured dependence factors, satisfaction and perception of alternatives. These factors together accounted for 39.1% of the variance in loyalty scores, $F_{(2,2901)} = 933.50$, p <.001. Both factors made unique contributions to predicting loyalty (satisfaction: Beta = 0.44, p <.001; alternatives: Beta = -0.33, p <.001) indicating that people were more loyal to the present government to the extent that they were more satisfied (Hypothesis 1a) and perceived poorer alternatives (Hypothesis 3a).

In a third analysis we looked at the role of loyalty as a mediator between the two dependence factors and support for change (Hypothesis 6). As in Study 1, we performed a model comparison analysis, whereby in Model 1 support for change was regressed onto loyalty, whereas in Model 2 it was regressed onto both loyalty and the two dependence factors, satisfaction and alternatives). The Model 1 analysis revealed a strong negative relation between loyalty to the government and the support for change, Beta = -0.87 (p <.001), whereby loyalty accounted for 76.0% of variance in voting decisions.

Important for the mediational hypothesis, the comparison between Model 1 and 2 showed that the two dependence factors did not account for any substantial variance in voting once the role of loyalty was accounted for, although the additional explained variance of 0.8% is still significant which may be due to the large sample size (i.e., comparison of Model 2 and 1; $F_{(2,2586)} = 44.31$, p <.001). Inspection of the regression weights reveals, however, a substantial decline in importance of these factors (satisfaction: Beta = -0.09; alternatives: Beta = 0.05). Thus, the impact of these dependence factors on support for change seems to be indirect rather than direct and appears to be mediated by the loyalty people feel to the current government.

Finally, we performed the above analyses again, but included a range of socio-demographic factors in the equation to see if the dependence model factors would contribute to predicting loyalty and support for change independent of structural variables, such as age, gender, education level,

social class, and house ownership. These structural variables together accounted for just 7.0% of the variance in loyalty scores, and 6.3% in voting decisions. In contrast, the two dependence model factors together accounted for 36.3% of the variance in voting decisions and 39.1% of the variance in loyalty. Thus, the dependence model seems to be a better predictor of the support for change and loyalty than a model based upon more objective characteristics of the voting population.

General Discussion

In the three presented studies we examined the validity of a social-psychological model of collective action, which is based upon insights and concepts derived from interdependence theory (Kelley & Thibaut, 1978). The fundamental assumption underlying the "dependence" model is that collective actions are shaped by people's perceptions about their relationship with authorities. The model was tested in predicting voting decisions in the context of two general elections and a referendum. All in all, the model explained people's voting decisions quite well. Below we will consider the main results and discuss some theoretical and practical implications of the findings. Finally, we will explore some directions for future research into collective actions as suggested by the dependence model.

Determinants of Collective Action

The first goal underlying this research was to test the adequacy of the dependence model in predicting people's support for institutional change (Equation 1). In Study 1 we analyzed people's support for a change in government in the 1997 UK national election. It was found that the four factors of the dependence model, satisfaction, legitimacy, alternatives, and transition costs, accounted together for 57% of the variance in voting decisions. People's support for change was found to be significantly related to (a) dissatisfaction with outcomes provided by the present government (Hypothesis 1a), (b) perceptions of illegitimacy of the government (Hypothesis 2a), and (c) the perception of better alternatives (Hypothesis 3a). Anticipated transition costs also influenced the support for institutional change, not directly (Hypothesis 4a) but indirectly (Hypothesis 5a) by decreasing the quality of alternatives. Moreover, in a second study it was found that each of the four dependence model factors, except satisfaction, contributed significantly to predicting the support for constitutional change in the context of the devolution referendum in Wales. Together these factors

explained 73% of the variance in voting decisions. Finally, in Study 3 we analyzed ex post facto the voting decisions of a large representative sample of voters during the 1992 UK general elections (Heath et al., 1993). It was found that satisfaction and alternatives together accounted for 36% of the variance in voting decisions. Moreover, the amount of explained variance increased to nearly 80% when loyalty was included as predictor.

These findings provide considerable support for the validity of the dependence model in predicting support for institutional changes in various domains. As a specific model of voting, the dependence model seems to do quite well compared to models which are derived from attitude theories (e.g., Fishbein & Coombs, 1974), and rational choice theories (e.g., Downs 1957; Himmelweit, Humphreys, Jaeger, & Katz, 1981). Moreover, the dependence model is superior to models which focus primarily on the voter's history (Berelson, Lazarsfeld, & McPhee, 1954) or on socio-structural factors as predictors of voting behavior (e.g., Campbell, 1960; Pomper, 1975). The findings of the presented election studies (Studies 1 and 3) attest to that by showing that socio-structural factors and past voting decisions accounted for little variance in voting over and above the dependence model factors. This is not to say, however, that these more objective variables might not shape the way voters evaluate the relationship with authorities.

It is noteworthy, however, that our main research objective was not to develop a theory of voting behavior per se. We were interested more generally in developing a generic social-psychological model of collective action, which would help us to understand why people would want to make efforts to support social and political changes in society. As such, the model should be applicable to a wide range of collective behaviors to oppose or replace authorities, such as decisions to vote, sign petitions, participate in strikes, demonstrations, and become a member of social movements (Tarrow, 1994). In this regard, we might note several interesting implications of the dependence model as suggested by our findings.

First, as a basis for collective action the model draws an important distinction between the evaluation of outcomes (personal and collective, negative and positive) provided by present authorities and those that alternative authority structures could provide. The relative independence of these two perceptions is important, because it suggests that people might decide against collective

action not because they are satisfied with the present situation, but because they do not see any better alternatives. This discrepancy accounts for various counterintuitive findings in political research, such as why governments and presidents sometimes survive after a strong economic recession (Kinder & Sears, 1985), why social protests and movements emerge in relatively prosperous periods, and why some dictators remain in power for relatively long time periods (e.g., Klandermans, 1997; Tarrow, 1994). These issues can perhaps be better understood by assuming that people will engage in collective action when they are dissatisfied with the current situation (i.e., low comparison level) and expect their situation to improve under a different authority structure (i.e., high comparison level of alternatives; Kelley & Thibaut, 1978).

The attractiveness of alternative systems may, however, be impeded by people's expectation about the direct costs associated with moving from one authority structure to another (e.g., a change in interest and currency rates, experience of a political vacuum). The findings of Study 1 suggest that if people expect the transition to be too costly or uncertain, this will have an adverse effect on the attractiveness of alternatives (Equation 2). Consequently, people could fail to support political change even though it would benefit them or their community in the long-run. Illustrations of this can be found in the literature on collective good management, whereby inadequate distribution systems continue to exist as it would be too costly to change them (e.g., water, fishery, public transportation; Ostrom, 1990; Van Vugt, 1997). As quite a different example, in intimate relationship research it is frequently observed that partners remain in a dissatisfying relationship because they made great investments (e.g., buying a house together), which they would loose in case of a break-up (Rusbult, 1980, 1983; Van Lange et al., 1997). Such investments increase the "exit" costs, and thus make it less attractive for partners to leave.

A second important distinction drawn by the dependence model is between satisfaction and legitimacy as two different antecedents of collective action. As indicated by our findings, people do not only evaluate authorities in terms of the actual (or expected) outcomes they provide (e.g., income support, tax benefits), but also in terms of their legitimacy. Both factors were found to contribute independently to predicting collective action (Studies 1 and 2). These findings corroborate the results from numerous previous studies showing that, in the evaluation of

authorities, citizens perceive a clear distinction between the favorability of the provided outcomes, on the one hand, and the used procedures, on the other (i.e., distributive vs. procedural justice; Lind & Tyler, 1988; Tyler, 1990; Tyler & Degoey, 1995; Tyler & Lind, 1992). According to these researchers, the authorities' legitimacy is indeed primarily inferred from perceptions about the fairness of their procedures. Unlike outcome concerns, concerns about procedural fairness are predominantly a public matter, and they are therefore more likely to lead to collective protest (cf. Wright, Taylor, & Moghaddam, 1990). Thus, although people might be quite dissatisfied with their direct material and financial situation, the likelihood of them engaging in collective action will increase considerably if they also consider these authorities to be untrustworthy and dishonest.

Third, each of the four dependence factors was found to contribute uniquely to predicting the support for change in at least one of three studies. It must be noted, however, that the strength of these effects varied across studies. For example, in contrast to the election studies (Study 1 and 3), there was no significant link between satisfaction and collective action in the Welsh referendum study (Study 2). This is probably due to the particular context of the study, whereby the constitution of a Welsh assembly was not likely to directly affect the material outcomes of people in Wales. The Welsh assembly would indeed not have the power to determine wages, taxes, or other financial matters in Wales ~ these activities remained under control of the national government (Local Government Chronicle, 1997).

The referendum study also revealed some interesting differences in the predictive ability of the dependence model as a result of people's identification with and attachment to the Welsh community. In general, native Welsh were more supportive of the constitutional reform than non-native Welsh. Moreover, the first group's support for change was predominantly shaped by the attractiveness of the alternative (i.e., a Welsh assembly), whereas the support of the latter group depended primarily upon the expected transition costs. These findings suggest that people who identified strongly with the Welsh cause were emphasizing more the long-term benefits of the reform, whereas people with a weaker sense of identification were looking primarily at the immediate costs involved in the change (e.g., the costs of setting up a new parliament). A general implication of these findings is that in analyzing collective action attention should be paid to the

importance of social identification processes. The strength of identification with a particular group or cause might indeed increase people's willingness to organize themselves even if such efforts are costly in the short-term (e.g., Friedman & McAdam, 1992; Kelly, 1993; Kelly & Breinlinger, 1996; Klandermans, 1997; Simon, 1998).

The Role of Loyalty in Predicting Collective Action

A second aim of our research was to look at the role of loyalty as a psychological mediator between the dependence factors and the support for change. First, the studies measuring loyalty (Studies 1 and 3) provided good evidence that loyalty varied systematically with the dependence factors (Equation 3). In Study 1, greater satisfaction, legitimacy, and transition costs (indirect effect) as well as the availability of poorer alternatives promoted stronger feelings of loyalty to current authorities — these factors explained more than 80% of the variance in loyalty. Similarly, with different operationalizations of the relevant constructs, Study 3 revealed that a stronger loyalty was associated with greater satisfaction, and poorer quality of alternatives ~ these factors accounted for 31% of the variance in loyalty ratings. Thus, it seems that the dependence model factors together are well captured by a subjective measure of loyalty, which denotes how subjectively dependent or committed people feel to authorities representing them.

Moreover, there was some indication that feelings of loyalty mediated collective action (Equation 4). First, in Study 1 loyalty was found to be a much stronger predictor of the support for change than any of the dependence model factors (i.e., see beta-weights in Table 1). Also, in comparing the predictive ability of a model of collective action which included loyalty, either with, or without the dependence model factors, it was found that these factors together accounted for little extra variance in people's voting decisions over and above the impact of loyalty. Finally, the links between the individual dependence factors and support for change decreased substantially when loyalty was included in the regression model.

We should note, however, that whereas the effect of legitimacy fully disappeared when loyalty was included in the equation, satisfaction and alternatives still contributed uniquely to the support for change, accounting for an additional 8% of variance. Thus, there is no evidence that loyalty completely erased the effects of the dependence factors on collective action, at least in Study

1. However, the findings of Study 3 provided more support for complete mediation by the loyalty measure. The two factors, satisfaction and alternatives, accounted for a marginal 0.8% of variance in voting decisions when the effect of loyalty was taken into account. The present findings thus provide considerable support for the hypothesis (expressed in Equations 3 and 4) that the dependence model factors in combination establish a sense of loyalty, which prevents individuals from taking actions against authorities representing them. This result is, in fact, quite consistent with the idea developed in political theory that people's reaction to a decline in political organizations is qualified by the strength of their loyalty. Loyal members will express dissatisfaction about the organization by "voicing" their opinion, whereas disloyal members will respond by terminating the relation with a particular organization (i.e., exit and voice; Hirschman, 1970). The current findings indeed show the importance of loyalty as a psychological obstacle against participating in a collective "exit."

Limitations, Strengths, and Recommendations for Future Research

The findings of the presented studies provide interesting evidence for the role of dependence model factors (satisfaction, legitimacy, alternatives, transition costs) in determining people's willingness to engage in collective actions Also, the research supports the idea that the effect of these factors is mediated in part by the loyalty towards the authorities in place. These findings, however, should be interpreted with some caution. First, it can be questioned whether people are able to make distinctions between factors that are formulated in such abstract and general terms as "All things considered, I am quite happy with the present government" (satisfaction) or "The expectation of a different government appeals to me" (alternatives). The zero-order correlations between these constructs indeed suggest that people may have found it quite difficult to discriminate between satisfaction, legitimacy, alternatives, transition costs, and loyalty. Yet, the results of the confirmatory analysis in Study 1 suggest that people did seem to group the items according to the a priori model. Also, when analyzed together, each of the dependence factors contributed independently to predicting the support for change (with the exception of transition costs in Study 1), which shows that these constructs do have some unique predictive value. Finally, as stated before there are good theoretical grounds to assume a distinction between evaluations concerning

outcomes provided by authorities, their legitimacy, the perception of alternatives, and transition costs (Kelley & Thibaut, 1978; Lind & Tyler, 1988).

A second related issue concerns the presumed causal relation between the dependence model constructs: Does the perception of better alternatives give rise to collective actions, or is it the other way around, and do these perceptions change in accordance with people's voting decision? We cannot exclude self-justification effects in Study 2 and 3 as these were crossectional telephone surveys held shortly after people placed their vote. Study 1, however, was a two-wave study in which the dependence factors were measured prior to the election and the voting decision shortly afterwards. It must therefore be assumed that the support for change was the end product of these particular evaluations of the government rather than the reverse.

Nevertheless, in light of the above criticisms we recommend more rigorous follow-up tests of the dependence model in predicting collective action. This could be achieved, for example, through a longitudinal study of voting decisions, whereby, in between two elections, people will be interviewed at regular intervals to indicate their satisfaction, loyalty, and authority support. This will allow us to determine carefully how the desire for collective action changes as a result of shifts in the dependence model variables. Alternatively, the validity of the dependence model could be assessed experimentally via scenarios which describe a political event (e.g., election, demonstration), whereby information about the dependence model factors is systematically varied. For example, would people willingness to participate differ in case of an economic boost versus depression (satisfaction), in the presence versus absence of viable political alternatives (alternatives), and with either high or low investments needed in the process of change (transition costs)?

A third limitation of the research is that we used relatively small sample sizes to predict decisions in large-scale events, like a UK general election (Study 1) and a referendum in Wales (Study 2). Even though we used random procedures to select participants (i.e., based upon a random telephone digit generator) and the samples seemed to be quite heterogeneous, we cannot ensure the representativeness of the sample, and this could limit the generalizibility of our findings. It must be noted, however, that some of the findings were replicated in a post-hoc analysis of voting

decisions in a survey of a large nationally representative sample of approximately 3000 British voters (Study 3), whereby different operationalizations of the constructs were used. This gives us better confidence in the validity of the model. Furthermore, it should be emphasized that the primary interest of our research was not to predict the actual outcomes of the voting events we studied (e.g., which party would win?), for which more representative samples would have been required, but to predict under what conditions individuals would decide to support political change. However, in future research with larger samples the dependence model could well be used to determine the scale and intensity of collective action by aggregating the actions and evaluations of a representative group.

Finally, a strength of the research is that it proffers a model of collective action which combines and integrates diverse research literatures that have developed seemingly independently over the past decades, such as literature on social dilemmas, social movements, political actions, relative deprivation, and authority evaluations. Although these literatures all try to answer essentially the same question, that is when groups collectively organize themselves to improve their situation, there is surprisingly little cross-fertilization between these areas (cf. Kelly & Breinlinger, 1996; Klandermans, 1997; Ostrom, in press; Tyler & Dawes, 1993). By making a distinction between four central factors underlying collective action, satisfaction (i.e., comparison level), alternatives (i.e., comparison level of alternatives), legitimacy, and transition costs, the dependence model combines the key findings of these literatures. For example, one of the significant results of social dilemma research is that outcome dissatisfaction per se is not a sufficient condition for groups to engage in collective action (Samuelson & Messick, 1995). Furthermore, in the social movement literature it has been observed that collective protests are more likely to occur when people see they can improve their situation (Klandermans, 1997; Tarrow, 1994). Third, relative deprivation theorists believe collective action results from the discrepancy people perceive between their actual outcomes and the outcomes they expect from authorities (i.e., comparison level; Cook, Crosby, & Hennigan, 1977; Crosby, 1976; Grant & Brown, 1995). Finally, in the social justice literature it has been shown that the support for authorities is more strongly influenced by the perceived fairness of the procedures than by the fairness of the provided outcomes (Tyler & Lind, 1992).

Further research is needed to determine the applicability of the dependence model in predicting various forms of collective action in society. In this research we have looked at a relatively low-cost behavior, voting, but could these same factors also explain why people participate in more time-consuming activities against authorities, such as a demonstration, strike, or the membership of a social movement? Also, could the model help to understand why people decide to participate in more destructive forms of collective protest, such as riots, and rebellions? Or, do we need to include other factors to the model, such as personality and demographic differences to understand these phenomena? Finally, can we derive predictions from the model about the kind of actions people choose to express their discontent with authorities? These questions warrant further investigation to establish the utility of the dependence model as a generic social-psychological theory of collective action.

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Footnotes

1 In the social science literature the term loyalty has been used both to indicate how people evaluate authorities, and how they respond to them (Dowding & John, 1996). In accordance with the first interpretation, which follows Hirschman's (1970) original definition of loyalty, we use it as a psychological rather than behavioral form of attachment.

2 In neither of the presented studies did we make a formal distinction between actual and expected outcomes, because we believed it would be difficult for people to separate them in the surveys.

3 The results of these analyses can be obtained from the author upon request.

4 In the initial data analyses of both this study and the other studies we also included the six possible two-way interactions between the dependence factors in the equations. However, these interaction terms did not improve the ability of the dependence model to predict either loyalty or the support for change.

5 A regression analysis which included the preliminary sample of 256 participants produced similar results.

6 Because there are various missing values on the ratings of these factors in the dataset, these analyses are conducted with slightly different sample sizes.

Author's Notes

Table 1. Predicting Loyalty and the Support for a Change in Government from Dependence

Factors, Study 1

Criteria	Simple r with criterion	β	% of variance	F	df
Support for change			58	71.22	4,206
Satisfaction	-.73***	-.31**			
Legitimacy	-.68***	-.16*			
Alternatives	.73***	.30**			
Transition	-.45***	-.05			
Loyalty			79	202.15	4,206
Satisfaction	.83***	.27**			
Legitimacy	.80***	.28**			
Alternatives	-.85***	-.40**			
Transition	.49***	.03			

(Table 1 continues)

Support for change					
Model 1			51	219.94	1,209
Loyalty	-.73***	-.72***			
Model 2			59	58.49	5,205
Loyalty	-.73***	-.50**			
Satisfaction	-.73***	-.28**			
Legitimacy	-.68***	-.11			
Alternatives	.73***	.21*			
Transition	-.45***	-.05			

Note: * p <.05, ** p <.01, *** p <.001

Table 2. Predicting Support for Constitutional Change in Wales from Dependence Factors, Study 2

Criteria	Simple r with criterion	β	% of variance	F	df
Support for change			73	69.98	4,99
Satisfaction	-.63***	.06			
Legitimacy of change	.78***	.29*			
Alternatives	.82***	.37**			
Transition	-.76***	-.33**			

Note: * p <.05, ** p <.01, *** p <.001