

Measuring Political Competence: An Analysis with Reference to the Gender Gap*

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Political alienation has been an important concept in theories of participation and democratic policies. Subjective political competence ('internal political efficacy') is considered to be a main element within the broader concept of political alienation, and an important determinant of political participation. The main purpose of this article is to test statistically the assumption of similarity in model structure for men and women, i.e. the relation between political competence and voting turnout. Our findings, generated on the basis of a common survey questionnaire item, show that subjective competence has different significance for men and women. For men, it has an expected substantive meaning. For women, it seems to be irrelevant with respect to expected sources and consequences. Given this apparent incomparability in measurement, we conclude that it is inappropriate to use identical models for men and women. It is also argued that political competence should be conceived of as containing a cognitive element, 'objective political competence'. Empirical analysis shows that this concept is gender neutral with respect to political involvement.

Citizens across nations differ systematically in the way in which they respond to interviews. Not only different languages, but also differences in political and historical tradition influence responses. The concepts 'radical' and 'conservative', for instance, hardly arouse identical associations for West-Europeans and East-Europeans. These features may lead to a lack of equivalence in instruments and incomparability in measurements.

The awareness of such problems is highly pronounced among cross-national survey researchers. But when it comes to survey research *within* a nation, these problems are often ignored and treated as non-existent. Measurement items are assumed to be 'culture' free, i.e. to have the same meaning for all respondents. We question this assumption and claim that

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such differences may also exist within the confines of a single nation. Thus, if possible, one should test statistically the assumption of instrument equivalence and not merely rely on a priori assumptions.

By way of illustrating our position, this article focuses on the concept of political competence. This concept figures prominently in theories of political alienation and studies of political participation (Campbell et al. 1954; Almond & Verba 1963). Within social psychology many personality traits that refer to self-images, of which subjective competence may be argued to be one, are often known to display gender differentiation. On this basis one might reasonably expect that women's responses to items regarding political competence may be different from those of men. The issue here is not just a question of distribution (e.g. that women on average feel less competent than men), but one of measuring different substantive phenomena.

In what follows we first examine to what extent traditional indicators of subjective political competence measure the same theoretical concept. Secondly, we question the comparability in the measurement of subjective political competence for men and women respectively. If we are measuring the same phenomenon, we would expect it to have the same consequences for both sexes, for example with respect to voting turnout. If this is not the case, then either we are not measuring the same phenomenon or, alternatively, there is a need to respecify the model for one or both groups accordingly.

Finally, in light of our findings, we discuss the cognitive aspect of competence with respect to both subjective political competence and political involvement. We would expect that feeling of political mastery – subjective political competence – to be linked to the level of actual political knowledge. Again, if we are measuring the same phenomenon, we would expect that the strength of the causal relation should be equal for men and women. For our analysis we draw upon data from the Norwegian Election Studies program from 1969 to 1985.

Measuring Political Competence

Ever since the term political alienation was used in *The Voter Decides* (Campbell et al. 1954), it has been one of the most widely debated concepts in political science. Early on in this debate political alienation was divided into two main components – subjective political competence ('internal political efficacy') and system responsiveness ('external political efficacy') (Lane 1959; Converse 1972; Balch 1974). We concentrate on the former, which is defined as:

The individual's self-perception that he or she is capable of understanding politics and

competent enough to participate in political acts such as voting (Miller & Traugott 1989, 254).

In the American context, three indicators have been launched for measuring 'internal political efficacy', or what we here prefer to label as subjective political competence.¹ The Norwegian Election Studies have adopted two of these items which, for shorthand purposes, are usually labelled VOTING and COMPLEX. In addition, two other items of Swedish origin have also been included. These are usually referred to as RELEVANCE and DIFFERENCE. The four items are phrased as follows (translated from Norwegian):

VOTING Voting is the only way people like me can have a say about how the government runs things.

COMPLEX Sometimes politics and government seem so complicated that ordinary people can't really understand what's going on.

RELEVANCE What's happening in politics is rarely of relevance for me.

DIFFERENCE It is difficult to see the important differences between the parties.

These four items have been used in every Norwegian election study since 1969, except for the 1989 study where COMPLEX and DIFFERENCE were removed.

It is important to keep in mind that only the two items of American origin were designed to measure the 'internal political efficacy' dimension. The other two are not. A measurement model based on all four indicators is thus somewhat different from the traditional American model, and hence we cannot be sure that such a concept of 'subjective political competence' is reasonably similar to the American one. For purposes of the Norwegian case, however, Listhaug (1989) has suggested that the two items from the American National Election Surveys program may be combined with the two additional items RELEVANCE and DIFFERENCE. The idea behind this suggestion is that only the individual's feeling of political competence should decide his or her response to any given item. Other sources underlying responses are only considered as 'noise', thus lowering the reliability, but not the validity of the measures.

It seems to us that some questions may none the less be raised regarding the 'face validity' of these items. The argument underlying the RELEVANCE item is that people who feel alienated towards the political system, also fail to see the political system's relevance. They can't see how their own lives are dependent upon decisions reached by the political system. The question is, however, whether one can think of other reasons to agree with the

statement. In fact, this is not very difficult. For example some respondents who feel competent may argue, perhaps correctly, that certain political institutions and actors are more or less without power. Responses may also be dependent upon the individual's understanding of the word 'politics'. If a person only associates elected representatives with the term politics, he or she will – all things being equal – be more likely to agree with the statement than an individual who has a broader perspective. The point is, in short, that we can easily imagine other sources to a positive response than the lack of subjective political competence alone.

Our intuitive understanding of the DIFFERENCE item gives us even more reason to be doubtful of this item. If we imagine a person who does not feel competent towards politics, for instance, it is possible that he or she will agree with the statement because of a lack of information. On the other hand, a person who feels competent about politics can also complain about the small differences existing between political parties. His or her view can be that the established parties are in a market and behave oligopolistically, that is, that they try to keep newcomers out of collaborate by horse-trading with each other. The point is that a person with this view may answer the question under the assumption that he is asked to say something about the political system and not about his feeling of competence.

The VOTING item also has its troublesome features. The problem here is that to accept the election channel as the only way to influence politics does not mean that this is regarded as insufficient. Thus, for some people, agreement is not an expression of complaint or resignation; the statement may merely reflect a simple and quite acceptable truth.

Finally, regarding the COMPLEX item, both pro and con arguments can be found, but in our opinion the item more closely reflects the competence concept than the other three. The question of understanding politics must be considered as an important qualification for a concept of subjective political competence. Yet only an empirical study can provide insight into the objections we have put forward here. We have therefore tested the unidimensionality of these four items, i.e. the likelihood that these four items tap the *same* phenomenon. We do this by using confirmatory factor analysis as implemented in Lisrel methodology.²

Results of the empirical test are such that a unitary measurement model has to be rejected.³ Findings indicate that it is highly unlikely that responses to each of the four items stem from one underlying cause or factor or subjective political competence.⁴ Even if we accept all factor loadings to be estimated freely in each year of observation (data sets for five different years were used), we have to reject the model twice (1977 and 1981). Furthermore, it is doubtful whether it is reasonable to claim that the latent

factor is the same phenomenon in the years where the model was accepted, due to differences in factor loadings.⁵

It should be noted in passing that the dimensionality in the original American alienation items has also been questioned since they first appeared. With respect to the subjective political competence dimension, there is a fairly broad agreement that the proposed measurement models are bad, but there is some disagreement as to which indicator is the best. All in all, however, there seems to be a tendency in favor of the COMPLEX item. Converse stated that:

The political efficacy scale with which we have worked since 1952 involves a considerable blend . . . The item most clearly directed at personal competence independent of system responsiveness is the one which suggests that politics and government seem too complicated to understand. Assuming that complexity is seen as a neutral property (i.e. is not concocted by official malice or obscurantism), then responses are focused on the individual's own capabilities alone (1972, 334-335).

Mason et al. (1985, 146) confirmed these findings using Lisrel models and concluded that the COMPLEX item should be considered as a basic indicator of subjective political competence and should not be combined with other items into an index.

To conclude then, it would appear that both the original American measurement model and the Norwegian four indicator model must be rejected on logical as well as empirical grounds. They do not have satisfactory 'face validity', nor do they empirically appear to reflect any single underlying dimension. This does not imply that the indicators are all equally bad, only that it is unlikely that they all reflect the same underlying construct – subjective political competence. Hence, for purposes of further analysis we choose to follow the advice of Converse (1972) and Mason et al. (1985) and select the COMPLEX item as a unique indicator of subjective political competence.

A strategy which selects COMPLEX as the only and 'best' indicator for the Norwegian case, however, necessitates some comment. The problem is that the Norwegian translation of the original American item may imply different associations for the respective respondent groups. More precisely, the American version of COMPLEX focuses on the problem ' . . . that politics. . . is so complicated that a person like *me* can't . . . understand what is going on'. In the Norwegian context, by comparison, the COMPLEX item refers to 'ordinary people' instead of 'a person like me'. Thus, one interpretation of the Norwegian item, is that the statement is not meant to reflect the respondent's own feelings, but rather as a comment about a more undefined group of people he or she does not necessarily belong to. One may argue, for example, that political activists having high subjective competence will not consider themselves as 'ordinary people'. Under such circumstances their agreement with the statement has nothing to do with

their *own* subjective political competence. If this is true, then in the extreme case COMPLEX, as worded in the Norwegian version, is not an indicator of *individual* subjective political competence.⁶

Despite this argument, we do not believe that this linguistic nuance constitutes a significant problem for our analysis. We rely here on both substantive arguments and empirical documentation. First of all, we argue that the two alternative phrasings of the COMPLEX item are essentially comparable. We take this position because in an egalitarian society like Norway, which people other than oneself constitute the most obvious reference group when referring to 'ordinary people'? The point is that the respondents are asked to declare statements on behalf of a nearly all-inclusive group. Only a few sophisticated persons, it would seem, would claim that this is a category of people with which they do not have anything in common.

This reasoning is also supported by empirical findings. In a survey regarding Norwegian citizenship, conducted in 1990, respondents were asked two versions of the COMPLEX item – the traditional Norwegian one and another that more accurately reflects the American wording.⁷ These are placed at almost opposite ends of the questionnaire and in different contexts. The Norwegian version is presented as an isolated statement, while the American version is presented as one out of several reasons why one chooses not to be a member of a political party. It is quite remarkable how strongly the two items are related. More than 90 percent of the respondents claiming that the difficulty of politics is a main reason why they chose not to be a party member also agree with the statement in the traditional Norwegian wording. Similarly, 75 percent of the respondents disagreeing with the traditional Norwegian statement disregard the difficulty of politics as having anything to do with their non-membership.⁸ Despite the reservations mentioned above, we see few problems in using COMPLEX as a unique indicator of subjective political competence for the Norwegian case.

The Relevance of Subjective Political Competence

Most researchers have linked the traditionally lower voting turnout among women as compared to men with the fact that they have on the average a lower score on the 'internal political efficacy' scale as developed in the American National Election Surveys program. The Norwegian Election Studies program has found similar gender gaps in responses to the four items of subjective political competence during the period from 1969 to 1985. Barnes et al. (1979) and Goul Andersen (1984) also ascertain a gender gap in political self-confidence in different contexts. Thus, the

existence of gender gap in political self-confidence is a well-documented empirical finding.

A quote from *The American Voter* (1964) establishes the 'conventional wisdom' regarding the relation between subjective competence and turnout:

Belief in personal efficacy is one of the more prominent attitudes mediating turnout. Its weakness among women returns us directly to the question of sex roles. For this dimension of political motivation, more than any other, is relevant to role beliefs that presume the woman to be a submissive partner. The man is expected to be dominant in action directed toward the world outside the family; the woman is to accept his leadership passively. She is not expected, therefore, to see herself as an effective agent in politics (Campbell et al. 1960, 259–260).

The argument is repeated in several other studies. Frieze et al. (1978), for instance, maintain that the major cause of the low level of participation of women in politics probably derives from psychological factors based on socialization into traditional roles. The consequence is that women tend to act differently from men.

The basic issue is whether or not men and women differ systematically in the way in which they respond to measurement items that refer to self-images such as subjective political competence. In reality, comparability or invariance in measurement models represents a continuum that involves different degrees of similarity. Even so, the four cells in Table 1 may be said to represent a categorization of this continuum.

What is important here is the distinction between the relation among variables (i.e. measurement model structure) and the distribution (i.e. mean and variance) on a particular variable for the relevant groups of respondents. In most applications to date, researchers 'solve' the problem of measurement comparability between groups in three different ways. First, we have those who do not even discuss the possibility of different relations between the variables for the groups in focus. The only possible outcomes under this approach are cells one and two in Table 1. Usually, they make use of one regression model without testing for significant interaction terms. They assume, in other words, an a priori similarity in relations between variables for all relevant groups.

The second 'solution' of the comparability issue involves an awareness of this part of the problem. Typically, the response is one based on separate regression models for each of the groups involved, ending up with as many sets of parameters as there are groups. In this approach, cell four in Table 1 will be the likely outcome. While the first solution a priori claims that all parameter values are similar for the relevant groups, this solution will tend to indicate that no parameter values are equal across groups. The result is that the groups may look more varied than they really are. The problem is that there are no tests of whether the differences between the groups are

Table 1. Four Categories of Comparability between Groups in Measurement.

		Relation among variables	
		Similar	Different
Distribution on a variable	Similar	1	3
	Different	2	4

significant. The only significance test available is the usual one for testing whether a parameter value is different from zero, not the more interesting one which tests whether the parameter value is different from that of another group.

The third solution is to rely on the subjective judgment of the researcher. In this case, all four cells in Table 1 are possible outcomes. The emphasis on a subjective judgment creates a problem, however, if a researcher feels that the varying parameter values reflect differences in degree rather than differences in the kind of causal influence at work, then using an average, even for significantly different parameter values, is meaningful. The problem, of course, is to establish when we face separate causal processes and when we do not. We might end up in a situation where different inferences are made from the same data set with the same model and the same estimates, because of lack of formal criteria for distinguishing between different situations. In a review written by J. A. Davis (Galtung 1967, 358) this type of ad hoc behavior is well described: ‘. . . it is our opinion that it is not the absence of significance tests but the absence of any formal criterion for arriving at a conclusion which typifies this approach. The net result is art, not science’. Art is subjective, while science at least strives for something more. Confidence in the results presented demands some kind of formal criterion, preserving intersubjectivity.

Returning to the question at hand, the ‘conventional wisdom’ regarding the relationship between subjective political competence and turnout in light of possible gender differences tends to assume cell two in Table 1 as the most relevant outcome of a test for comparability. By referring to different distributions of men and women on the variable measuring competence, one has to assume that the relation between the two variables is identical or least positive and different from zero for both groups. Our interest is thus to test this assumption empirically. Since in our discussion we have only dealt with the possibility of gender differences, we will test models that assume time invariance, i.e. that there are no statistical interaction effects involving time. The effect of subjective political competence on voting turnout, in other words, is assumed to be constant over time. This assumption may prove to be invalid when we test for it, but as

Table 2. Model Evaluation. Effects of Subjective Political Competence on Voting Turnout for Men and Women *Measured at Three Points in Time, 1977, 1981 and 1985.*

Model	Chi-square	df	p-value	Decision ¹
M1 Independence	31.83	6	0.000	Rejected
M2 Model invariance	9.19	5	0.102	Accepted
M3 Model variance	3.58	5	0.611	Accepted

M1 The model postulates *no effect* of subjective political competence on voting turnout for both men and women (and across all measured points of time).
M2 The model postulates a *gender-equal effect* of competence on voting turnout (being constant across time).
M3 The model postulates a *gender-specific effect* of subjective competence on voting turnout for men, but no effect for women (being constant across time).

¹ Level of acceptance is p-value > 0.05.

a starting-point this seems to be a reasonable assumption. If the assumption proves false, then we must of course reconsider time stability.

The time restriction basically reduces the number of alternative models to three:

(M1) There is *no effect* of subjective political competence on voting turnout for either men or women.

(M2) There is *an effect* of subjective political competence on voting turnout, the effect being *equal* for men and women.

(M3) There is a *gender specific effect* of subjective political competence on voting turnout for men, but none for women.

Each of these three models is tested by a multi-sample Lisrel analysis, that is, by means of analyzing data from several samples simultaneously according to Lisrel models for each group, with some or all parameters constrained to be equal over groups. This method enables us to have all four cells in Table 1 as possible outcomes of a comparability test while relying on formal criteria, i.e. statistical tests, for drawing conclusions. In total we have six groups, consisting of men and women respectively measured at three different points of time – 1977, 1981 and 1985.⁹ The competing models differ only in the specification of the effect of subjective political competence on voting turnout for men and women.

Results from an analysis of these three alternative models are contained in Table 2. As can be seen, our initial test gives no decisive answer to the question involved. The independence model, M1, has to be rejected because of too large discrepancies between predicted and observed results.

Table 3. Model Evaluation. Effects of Subjective Political Competence on Voting Turnout for Men and Women *Combined Over Three Points of Time, 1977, 1981 and 1985*

Model	Chi-square	df	p-value	Decision
M1alt Independence	30.06	2	0.000	Rejected
M2alt Model invariance	5.89	1	0.015	Rejected
M3alt Model variance	2.67	1	0.102	Accepted

M1alt The model postulates *no effect* of subjective political competence on voting turnout for both men and women.

M2alt The model postulates a *gender-equal effect* of competence on voting turnout.

M3alt The model postulates a *gender-specific effect* of competence on voting turnout for men, but none for women.

But we are left with two possibilities which are statistically equal, since they have the same number of degrees of freedom and are both accepted by the chi-square test. There are, in other words, no formal criteria upon which to rely in order to choose between the two models. We face a problem of indecision.

An important point in this indecision problem is the number of observations in each group. The fewer the observations, the larger the uncertainty in parameter estimates. Since all models, M2 and M3 included, postulated time-invariance, it is possible to simplify the mode by ignoring time as a parameter. As a matter of fact, this parameter is a constant in these two models. By doing this we reduce the number of groups to two – men and women respectively. We can do this because both of the accepted models maintained time-invariance. Once combined over time, each group consists of more than 2500 observations, which provide more precise parameter estimates.

Under these new circumstances, there are still three possible outcomes. First, it is possible that both models will be accepted, so that we will still face the problem of indecision. Second, there is a possibility that both models will be rejected, forcing us to reconsider the assumption of time-invariance. Finally, the third possibility is that only one of the models will be accepted. The point here is that the decision regarding a choice among these possibilities should rely on a formal criterion, not on subjective judgment. It is hoped that other researchers using the same data set might reach the same conclusion as we do – by following the same rules for statistical inference.

Table 3 then contains results from a second analysis based on these combined groups. As the table discloses, model M2alt, postulating identical parameter values for men and women, is rejected, while M3alt, supporting a hypothesis of gender-based cultural differences, is accepted. More

precisely, the effect of competence on turnout was estimated to 0.18 for men. For women, by comparison, the hypothesis was one of no effect of subjective political competence on voting turnout. In the model, therefore, the parameter measuring this effect was fixed to zero.

To sum up so far, these findings suggest that the same survey question can mean different things to different types of respondents like men and women. This supports a hypothesis of two distinct cultures based on gender.

The Relevance of Objective Political Competence

Up to this point we have uncovered just one part of the picture. We also wish to argue that personal competence consists of another element – an *objective* or *cognitive* part in addition to the subjective or affective part.

Subjective competence is based on the feeling of mastery. An individual's objective political competence, on the other hand, is related to the amount of political knowledge he or she possesses. An intuitive understanding of the relation between the two elements of personal political competence is that the subjective part presupposes the objective part. Since the individual is not born with a certain level of subjective political competence, it seems to be a reasonable assumption that an individual's level of knowledge is one of several factors determining his or her feeling of mastery. The more knowledge an individual possesses, the more reason one has to feel competent. Why has objective competence been neglected in studies of political involvement? Probably one important reason is that very few, if any, have questioned the validity of the indicators of subjective political competence between groups. The validity of these indicators has been regarded as equally good or bad for all relevant groups. Accordingly the effort has been put into developing more and better indicators of subjective political competence. Another reason may be found in a minimal interest regarding an analysis of the importance of knowledge as a predictor of general political preferences.¹⁰ This may in part be explained by extensive use of education as a background variable. Education has generally been seen to have two implications – first as a measure of social status and second as a measure of cognitive level (Martinussen 1977; Valen 1981; Inglehart 1977).

Based on findings from the 1985 Norwegian Election Study we can conclude that – for both sexes – indicators measuring knowledge reflect educational level to some degree. People with a university degree in particular differ from the rest of the educational categories by showing high objective competence. This means, in the most literal sense, that a university trained citizen also seems to be the most competent citizen. But this kind of competence must be understood to be a more general one. For

Table 4. Objective Competence, Expressed by Candidate Knowledge, and Gender. The Norwegian Election Study, 1985 (percent).

Number correctly identified	Men	Women	Total
0	30	37	33
1	13	15	14
2	14	14	14
3	13	13	13
4	11	10	11
5	20	12	16
Sum N	100 (1130)	100 (1050)	101 (2180)
Chi-square = 30.9	<i>p</i> -value = 0.000	df = 5	

our purposes we are more interested in specific *political* competence. Education alone cannot capture this feature.¹¹

In the Norwegian Election Studies, only the 1985 questionnaire contains a relevant indicator of objective political competence. As in the American National Election Studies program, this indicator concerns candidate knowledge (cf. SSB 1985). The 1985 survey asked the respondents if they could name up to five parliamentary candidates in their constituency. As Table 4 indicates, the result was not particularly encouraging. About one-third could not mention a single name, while only about 15 percent could identify five names.¹²

Table 4 indicates that men possess more political knowledge than women. The gender gap is in particular located at the extreme points of the variable. Thus, the general picture of the relation between gender and objective competence is similar to the relation between gender and subjective competence. It is important to note, however, that this fact does not imply that the relation between objective competence and turnout also has to be different for men and women.

Before looking at the effect of objective political competence on voting turnout it is reasonable to ask how the cognitive and affective aspects of personal political competence are interrelated. Our discussion and empirical findings so far lead us to expect that *women's expression of subjective competence is weak or unrelated to their level of objective competence.*

A crosstab analysis of the relationship between subjective and objective competence indicates that the overall relationship is indeed rather weak. This tendency is documented by results from a single independence test between the two variables as shown in Table 5. Of particular interest is the difference in findings for men and women. For men, there is a statistically

Table 5. Test of Independence between Subjective and Objective Competence; the Total Sample, Men and Women Separated. The Norwegian Election Study 1985.

	Men	Women	Total
Chi-square	27.53	4.55	15.43
df	4	4	4
p-value	0.000	0.337	0.000

significant relation between objective and subjective competence, while for women there is none. For men, in other words, the two concepts seem to have an intuitive and logical connection, while this is not the case for women. A low chi-square with a p-value above 0.30 in the latter group gives an unambiguous conclusion: whether women possess a high or low ability to name candidates is not reflected in their level of subjective political competence. Once more, we find that subjective political competence has not practical relevance for the female group. The responses we get from women to the 'COMPLEX' item, in short, do not exhibit any significant empirical relation either to turnout or to knowledge.

The question which remains is how objective political competence is related to turnout for both sexes. In keeping with previous studies, our hypothesis is that for both men and women there is a significant positive relation between political knowledge and turnout. Furthermore, we assume that this effect is identical for men and women. We argue, in essence, that while sex roles affect the responses to attitudinal questions, this is not true for tests of knowledge. Answers to the latter are either true or false and thus unaffected by social norms.

The Lisrel analysis undertaken in this case is based on the 1985 survey alone, since earlier surveys do not contain relevant data. This situation makes it harder to invalidate the model invariance assumption (i.e. no statistical interaction) as compared with the previous analysis where we were able to combine three surveys. In the previous analysis of the relation between subjective competence and turnout, we employed three models, M1, M2 and M3 (see Table 2). In the following we will use the same model structure, only replacing subjective political competence with objective political competence and labelling the models MO1, MO2 and MO3. Both models MO1 and MO2 assume gender invariance. Model MO1 assumes no effect of objective political competence on voting turnout, while model MO2 does assume an effect. Model MO3 assumes a specific gender variance model. For women there is no effect of objective competence on turnout, while for men there is.

As shown in Table 6, only model MO2 is accepted. This finding supports

Table 6. Model Evaluation. Effects of Objective Political Competence on Voting Turnout for Men and Women. The Norwegian Election Study 1985.

Model	Chi-square	df	p-value	Decision
MO1 Independence	55.35	2	0.000	Rejected
MO2 Model invariance	2.94	1	0.086	Accepted
MO3 Model variance	14.11	1	0.000	Rejected

MO1	The model postulates <i>no effect</i> of objective political competence on voting turnout for men and women.
MO2	The model postulates a <i>gender-equal effect</i> of objective competence on voting turnout, being constant across gender.
MO3	The model postulates a <i>gender-specific effect</i> for men, but no effect of objective competence on voting turnout for women.

the notion of identical effects of objective competence for both sexes with respect to voting turnout. The estimated effect of objective competence on turnout reaches 0.27. The main point, however, is that this parameter is identical for men and women. In this respect the cognitive part of personal political competence is gender neutral, while this is not the situation for the affective element, subjective political competence.

These findings seem to bring into question another piece of 'conventional wisdom', as claimed, for example, by Halsaa (1977, 127), when she suggests that women are less able to 'convert' their resources into political action. According to this argument, given an equal level of resources – e.g. political knowledge – women participate less than men. Such an argument presupposes model variance or statistical interaction, i.e. different effects of objective competence on political participation for men and women. Based on the findings presented in Table 6, however, we have no reason to believe in the descriptive power of this train of argument.

Conclusion

On the basis of our study two implications stand out. First, when doing comparative empirical research, regardless of whether it is between countries or within a country, we have demonstrated the necessity of testing statistically the assumption of similarity in model structures between relevant groups. Assuming equivalence – i.e. comparability in measurements for different groups of respondents – when this is not reasonable, may yield grossly erroneous conclusions.

Our test of instrument equivalence of 'subjective political competence' between men and women yields an ambiguous conclusion in this regard. For women subjective political competence was not related to either voting

turnout or objective political competence. By contrast, and more as expected, there was a positive effect of objective competence on subjective competence for men, and similarly a positive effect on voting turnout. According to theories in social psychology, the gender gap we are witnessing with respect to subjective political competence probably stems from sex role socialization. Objective political competence, by contrast, is shown by our analysis to be a gender neutral concept. Instead of focusing on the affective element of personal political competence, therefore, in future studies it would seem more appropriate to emphasize the cognitive component instead.

Second, our findings showed that the four items used to tap subjective political competence in the Norwegian Election Studies do not reflect the same phenomenon. We argue for the use of the so-called COMPLEX item. The main conclusion, however, is that more work should be devoted to developing more and better indicators of political competence, both subjective and objective.

APPENDIX – The *Lisrel* Methodology

The major advantage of this methodology lies in its generality. Rather than treating path analysis and confirmatory factor analysis as distinct and unique, Lisrel treats them as special cases of a common model. Other standard multivariate methods like regression analysis, analysis of variance and various extensions thereof, may also be treated as special cases of the full Lisrel model.

The point of departure for Lisrel is covariances rather than cases. Instead of minimizing functions of observed and predicted individual values, this methodology minimizes the difference between the sample covariances and covariances predicted by the model. The observed covariances minus the predicted covariances form the residuals. The fundamental hypothesis for this procedure is that the covariance matrix of the observed variables is a function of a set of parameters (Bollen 1989, 1–2). In other words, the approach involves (1) constructing a model, (2) estimating the parameters of the model from the data, and (3) testing the fit of the model to the data by comparing the observed covariances with the predicted ones. Another and perhaps better term than Lisrel is thus *covariance structure analysis* since by constructing a model the researcher forces a model-structure on the covariance matrix.

A benchmark in model evaluation is the test of ‘goodness of fit’ – that is, how well the model fits the data. If the misfit is too great, one is forced to reject the model. On the other hand, we can also face the problem of too good a fit, i.e. because we use a model with too many free parameters

(Bishop et al. 1975, 324). In such situations one may still wish to question the appropriateness of the underlying model. One can get goodness of fit approaching unity by simply freeing up more parameters in a model. In Lisrel models this is because estimates of free parameters are obtained in such a manner as to get best fits to the observed covariance matrix conditional upon the fixed parameters.

In short, in applying Lisrel methodology we demand two qualities of a model which, however, are inconsistent with each other: (i) the model should provide good explanation to the observed data, i.e. the discrepancy between data and model expectations should be minimal; and (ii) the model should be parsimonious, i.e. we prefer as simple a model as possible. Since these demands are contradictory, we have to strive for a tradeoff. The model should simplify, but not oversimplify, the process behind the social phenomenon which is at the core of our study. A chi-square test can be computed to test the null-hypothesis that the observed covariance matrix was generated by the model. The alternative hypothesis is that the covariance matrix is an unrestricted covariance matrix. Rejecting the null-hypothesis indicates that the model does not adequately reproduce the observed covariance matrix.

A detailed description of this methodology, model notation and references to specific topics are to be found in Bollen (1989).

NOTES

1. See Abramson (1983) for an introduction to this concept and its measurement in the US case.
2. For remarks concerning the Lisrel method, see Appendix.
3. The model we employ assumes identical measurement properties of the observed variables over time, that is equality restrictions on the factor loadings. We have no reason to believe that in one year, for example, COMPLEX is the best indicator, while in another year DIFFERENCE has this role. The theoretical implication is an assumption that the relation between subjective political competence and its various indicators should be constant across time.
4. Results showed a chi-square of 139 with 42 degrees of freedom, giving a probability of 0.000. This indicates that we have to reject the null-hypothesis that the observed covariance matrix is generated by or in keeping with a model presuming unidimensionality. (See comments in the Appendix for an explanation of the method and logic involved here.)
5. These findings seem to contradict the results presented by Ola Listhaug (1989) in his analysis of 'internal political efficacy' among Norwegian citizens using the same data sets as we use. The reason for this appears to be the use of two different methods and models giving two different conclusions. While we use LISREL (confirmatory factor analysis), Listhaug's method is traditional exploratory factor analysis.
6. It may be mentioned that Listhaug (1989) also faces this problem. But in his analysis, nothing is said about the matter.
7. The Norwegian version is worded as follows: 'Sometimes politics and government seem so complicated that ordinary people can't really understand what's going on.' The 'American' version, by comparison, is worded as follows: 'Politics is so complicated

- that I feel it is difficult to understand what's going on.' (Both questions translated from Norwegian.)
8. A standard chi-square test of independence gave a chi-square of 230 with four degrees of freedom and thus a p-value less than 0.000 (N = 1523).
 9. We set aside data from the 1969 and 1973 studies because special circumstances, like a small number of respondents, create some problems for the analysis.
 10. There are a few exceptions. Holmberg & Gilljam (1987, 61–65) demonstrate that, in Sweden, political knowledge has a weak connection with party preference. In the US, on the other hand, Granberg & Holmberg (1989, 181–185) show that this is of importance: In contrast to the Swedish electorate, American voters with a low level of knowledge are more likely to shift party preference during an election campaign.
 11. Political knowledge is also highly correlated with individual political interest. This means that objective political competence is also an indicator of personal involvement, which definitely is something else. Our impression, then, is that objective political competence is made up of several components which are not necessarily related to each other. The concept of objective political competence, in short, seems to have several sources, and this is an argument for using it as a unique variable in the analysis.
 12. One objection to this item may be that the most familiar candidates campaign only in certain constituencies, and this creates a problem for voters in other areas to mention any names at all. However, we did control for possible regional variations in naming candidates, but there were few differences throughout the country. It may be mentioned in this connection that the nomination process and election campaigns in Norway have a decentralized character (Valen 1988). It is also natural to believe that the information voters receive from the mass media is almost equal.

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turnout or objective political competence. By contrast, and more as expected, there was a positive effect of objective competence on subjective competence for men, and similarly a positive effect on voting turnout. According to theories in social psychology, the gender gap we are witnessing with respect to subjective political competence probably stems from sex role socialization. Objective political competence, by contrast, is shown by our analysis to be a gender neutral concept. Instead of focusing on the affective element of personal political competence, therefore, in future studies it would seem more appropriate to emphasize the cognitive component instead.

Second, our findings showed that the four items used to tap subjective political competence in the Norwegian Election Studies do not reflect the same phenomenon. We argue for the use of the so-called COMPLEX item. The main conclusion, however, is that more work should be devoted to developing more and better indicators of political competence, both subjective and objective.

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