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Political Competences and Political Participation: On the Role of “Objective” Political Knowledge, Political Reasoning, and Subjective Political Competence in Early Adulthood¹

This article deals with the relation of objective political competences and the subjective assessment of one’s own political competence. The theoretical frame states that at least in early adulthood, only the subjective competence but not political knowledge is an autonomous and important determinant for (socio-)political participation, mediating the influence of objective political competences (or political knowledge, respectively). To test the role of subjective political competence and the (remaining) effect of political knowledge in early adulthood, empirical evidence using a sample of university students is presented. Cross-sectional analyses show that political knowledge has at least, if anything, an impact on voting, while fully mediated by subjective political competence relating non-electoral legal political activities. In contrast, the more profound competence of political reasoning has clear and stable positive effects on the intention to engage in non-electoral legal political actions – here subjective competence seems to be less important. Eventually, after a short excursus on school participation the findings are summarised and discussed by relating them back to framework and hypothesis. A concluding section proposes two opposing developmental-psychological considerations about the findings, raising further questions and giving an outlook into future research.

Keywords

civic education, political competence, political education, political efficacy, political knowledge, political participation, political reasoning

1. What it is all about: The concern of this article

Delli Carpini and Keeter (1996, 8) designate political knowledge as “the currency of citizenship” – thus, political knowledge is considered a significant resource for meeting the role of the politically active and involved citizen. But since the knowledge of politics among most citizens seems to be insufficient compared with what might be desirable for meeting the standards of being a “competent citizen” (e.g. Delli Carpini 2009; Delli Carpini, Keeter 1996; Maier 2000; Westle 2009; Westle, Johann 2010), the question raised here is whether or not it is the objective political knowledge or rather the subjective assessment of one’s own political competences which is (more) important in becoming an active citizen. Moreover, besides bivariate connections this article also looks on multivariate associations between the aforementioned variables. Therefore, the question is not only whether political knowledge is important for political action (tendencies) but also if subjective competence mediates the role of objective political competences (incl. political knowledge). Apart from political knowl-

edge, the role of political reasoning as another political competence is discussed either.

It is argued that, at least in early adulthood, only the subjective competence but not political knowledge remains an important determinant for (socio-)political participation, mediating the influence of objective political competence(s). To this end, in the next section the theoretical framework is referred, including the clarification of the central concepts, some empirical evidence for the assumption this article is based on, and the theoretical argumentation and hypothesis inherent. The then following paragraph deals with operationalisation and data collection. After that, my own empirical analyses are presented. The last but one section summarises the findings, relating them back to the hypothesis, followed by concluding theoretical considerations about developmental-psychological explanations of the findings and an outlook into future research.

2. Theoretical framework and empirical evidence

2.1 Political participation

Political participation can be understood as every activity which citizens take voluntarily to influence decisions of authorities on the different levels of the political system (Kaase 1992, 339). Therefore, political participation (or engagement which will be used interchangeable) is defined as any attempt to influence generally binding rules and decisions on any political level. Although there are many possibilities to differentiate the manifold political activities, here – by following for example Heß-Meininger (2000) – they are theoretically subdivided into *electoral* political participation (voting), *conventional*, “traditional” and more party-oriented or institutionalised political activities

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(e.g. supporting an election campaign), *unconventional*, less time intense or binding political participation (e.g. signing a political petition), and *non-normative*, illegal political (protest) activities (e.g. attending a violent demonstration) (cf. Barnes et al. 1979; Gabriel, Völkl 2008; Steinbrecher 2009; see also 3.3).

At the micro-level, the here relevant dimension where political competences belong to, one can identify three ways of explaining political participation (Verba et al. 1995; Steinbrecher 2009): *Resource* approaches take a closer look at the meaning of individual resources like *education*, income or age and gender. Personal *motives* are a second group of influential variables considered especially from the political culture perspective. They comprise not only individual values and attitudes, but also (political) interests, political trust, and political *efficacy*. Finally, the network or *social capital* approach has to be mentioned which starts from the assumption that political participation cannot be investigated independently from variables like interpersonal trust, social contacts and networks, and volunteering. Besides those attempts and by often falling back on variables mentioned as motives above for operationalisation, *rational* approaches assume that individuals get politically active if they think it is probable to satisfy their own needs to the highest possible extent (Steinbrecher 2009, 64 ff). In the following, although the focus is on political knowledge and other political competences, it should be kept in mind that competences by no means are the only variables that may be important in explaining political participation.

2.2 Political competences and participation

Drawing on the assertion that political competences are substantial for political participation, the first two approaches (and maybe the rational choice paradigm) mentioned above are of special interest: Subjective political competence can be seen as a motive or an attitudinal variable (i.e. “internal political efficacy”) while objective political competences are considered to be individual (educational) resources. In general, competences are relatively outlasting capabilities in dealing with specific demands. Thus, political competence is the ability to understand political facts and processes and to influence these with regard to one’s own interests (Gabriel 2008; Vetter 1997). It is the ability to judge politics and to act politically (Sander 2008, 73). However, as stated above competences can be objective ones or sometimes they rely just on one’s personal subjective assessment, and both of them seem to be very important in explaining political participation.

2.2.1 Objective political competences

Central objective political competences are the (actually existing) ability to analyse and judge political

incidents, problems and decisions on one’s own (*political analysing and reasoning*), to formulate one’s own political positions, convictions and opinions, and to advocate them in political negotiations (*capacity to act politically*), and *methodical abilities* (Detjen 2007; GPJE 2004; Krammer 2008; Sander 2008). In addition, *political knowledge* can be defined “as the range of factual information about politics that is stored in long-term memory” (Delli Carpini, Keeter 1996, 10). Political knowledge, especially conceptual knowledge – i.e. actual knowledge about political concepts and procedures –, goes as a basic precondition for the acquisition of the previously mentioned three competences (GPJE 2004; Krammer 2008; Richter 2008; Sander 2008). Therefore, the possession of political knowledge and its recall can be seen as a component of objective political competence: political knowledge is a “content-related competence” and, thus, a central part of political basic education and more or less a political competence itself (Richter 2008; Weißeno 2008) because it has to be acquired, must be stored and should be available. This claim is decidedly true since Torney-Purta (1995) states the political as a special and fourth basic knowledge domain besides biology, physics, and psychology – thus, politics require an own domestic-specific thinking and problem-solving on the foundation of domain-related knowledge.

As it is very difficult to adequately measure the four objective competences mentioned (incl. political knowledge), the focus is only on the cognitive dimension (and not on the methodical or agency dimension). On the one hand, this dimension contains the competence of political analysing and reasoning (short: political reasoning); on the other hand, political knowledge as contentual competence and basic prerequisite for all the other political competences is part of it (Schulz et al. 2010a). In addition, for political knowledge the differentiation between two facets seems reasonable: Johann (2010) stated that we have to distinguish between knowledge of political figures (i.e. “symbolic” political knowledge of political actors etc.) and knowledge of political rules (i.e. “structural” political knowledge, esp. knowledge of the polity). Although not totally separated, they still are distinct types of political knowledge (Westle 2005). Furthermore, this division is similar to what Jennings (1996) called “textbook knowledge” of the mechanics of the political system vs. “surveillance knowledge” of current political events and politicians, and that distinction is supported by Delli Carpini and Keeter (1996) as well.

Theoretical basis and empirical evidence. “Civic knowledge promotes political participation” (Galston 2001, 224), political competence is a precondition of the involvement into politics (Pickel 2002, 71) – these two statements summarise the actual research status quite well: More extensive knowledge about polity



(political structures), politics (political processes) and policy (political contents), and other political competences are presumed to enable and motivate to engage politically.

Especially Delli Carpini and Keeter (1996) have argued that knowledge of politics not only promotes the process of political identification but also influences other political competences and, thus, actual political participation. Defining knowledge as a personal resource and following the political culture school, this is in line with assumptions of resource approaches which usually look at socio-demographic variables like education to explain political participation. Civic education or political knowledge therefore is a critical aspect of acting as a citizen: "a well-informed citizen should be more likely to be attentive to politics, committed to democratic principles, feel efficacious, and engaged in various forms of participation" (Johann 2010, 5). If that is true, the promotion of political knowledge might appear as an exceptionally relevant task for every citizen.

Besides, Johann (2010) found that both knowledge facets – symbolic as well as structural political knowledge – were positively correlated with voting with a stronger association for symbolic knowledge. Furthermore, structural knowledge was positively related to unconventional political participation while symbolic political knowledge showed a negative effect on more conventional activities. At any rate, several studies underline the positive role of political knowledge as predictor for at least voting and conventional political participation (e.g. Amadeo et al. 2002; Krampen 2000b; Oesterreich 2003; Torney-Purta et al. 2001; Schulz et al. 2010a).

For political reasoning, however, empirical evidence is flawed. There are not many studies concerned with the role of analytical abilities in the political realm. But yet Schulz et al. (2010a) measured political knowledge using a considerable amount of items on political reasoning. At least this study indicates that among adolescents political reasoning is positively related to (intended) voting or conventional political engagement.

However, taking into account rational choice paradigms or action theoretical models of political participation as well, the question about the actual necessity of objective political competences (and political knowledge as a content-related competence) has to be raised: What if subjective components are sufficient in explaining political participation? How much do they explain in addition to objective competences (if the last have any explanatory value at all)? Here, by adapting the terms, subjective behavioural control (in action theoretical models) might be seen as partly equivalent to subjective (political) competences (resp. internal political efficacy). Following the action theoretical model it might be true that, controlled for each

other, not objective competence(s) but the subjective one is more important: Maybe it is about the personal control *convictions* and *feelings* of competence and not the real knowledge and ability (cf. Ajzen 1991; 2001; Bandura 1977; Krampen 1991; 2000a; 2000b; Ryan, Deci 2000; Vetter, Maier 2005)? What if subjective competence mediates the role of objective competences? That is going to be tested in the fourth section. Before that, evidence for the importance of subjective political competence is presented.

2.2.2 The role of subjective political competence

The concept "self-efficacy" is based on the distinction of "outcome expectations" ("a person's estimate that a given behavior will lead to certain outcomes") and "efficacy expectations" ("the conviction that one can successfully execute the behavior required to produce the outcomes") (Bandura 1977, 193). The second one is the estimation that the person itself is able to successfully act to gain the objective and can be named "subjective competence" or "internal efficacy". Based on Almond and Verba (1965), in terms of politics this concept means the individual's sensation or the *feeling* that one is capable to understand political facts and processes and to be able to take political influence. It refers to the feeling of being politically powerful on one's own and often is also designated as "internal political efficacy" (e.g. Campbell et al. 1954). On the contrary, external political efficacy as a feeling of political responsiveness has nothing to do with subjective political *competence* (Vetter 1997; Vetter, Maier 2005). Thus, the interest of this article is only on subjective political competence which is near-completely equivalent to internal political efficacy by definition. Both terms are used interchangeable (e.g. Koch 1993), but in the following for reasons of conceptual clarity the term subjective political competence is preferred (cf. Pickel 2002).

Empirical evidence. Empirical evidence for the meaning of subjective political competence draws an unequivocal image: Numerous studies show that subjective political competence (or internal political efficacy, self-concept of political competence) plays a significant (positive) role concerning political participation (e.g. Abravanel, Busch 1975; Janas, Preiser 1999; Krampen 1990; 1991; 2000b; Pickel 2002; Preiser, Krause 2003; Schmidt 1999; Schulz et al. 2010b). While Krampen (2000b, 290) states that "the variables of frequency of political activity in everyday life, self-concept of political competence, and political knowledge in adolescence are the most significant discriminators for voting versus nonvoting behavior of young adults", for Spanning (2008, 49) "the lack of political efficacy is one of the major obstacles to participation." For voting and conventional political activities, objective political knowledge obviously is

the key causal component (e.g. Amadeo et al. 2002; Oesterreich 2003; Torney-Purta et al. 2001; Schulz et al. 2010a), but if we want to predict participation in unconventional or non-traditional political activities, subjective political competence might be the more robust predictor (e.g. Fend 1991; Kuhn 2006; Schulz et al. 2010b).

That does not, however, answer the question at stake yet. Using multivariate regression analyses, Johann (2010) found that knowledge variables continuously showed stronger effects on political behaviour than subjective political competence. Interestingly, structural political knowledge but not subjective competence had a positive effect on unconventional (legal) political protest while “conventional” (in the terms of Johann “problem-oriented”) political participation was positively related to subjective political competence on the one hand, but negatively to symbolic political knowledge on the other.

Hence, the role of subjective vs. objective political competences is undoubtedly equivocal – especially since studies indeed find positive correlations between objective and subjective measures though just of moderate extent (Fischer 1997; Maier 2000; Westle 2005; 2006; 2009; Westle, Johann 2010). This implies that adolescents as well as adults are able to assess their political competence somewhat adequate, but ultimately the relation seems to be by no means perfect. Furthermore, these findings might support the assumption that both, objective and subjective competences have separate effects on political participation.

Additional influential variables. Finally, for central influential variables research usually finds higher levels of (objective as well as subjective) political competences for older and higher educated as well as male² adolescents (Fend 1991; Fischer 1997; Gaiser et al. 2005; Grönlund, Milner 2006; Kuhn 2006) – so these variables may explain differences in political participation, too. Additionally, since Schulz et al. (2010a) found that nowadays girls score higher in political knowledge, the role of political reasoning may make a considerable difference because that study put special emphasis on items related with this domain. In relation to political participation, young men are more often engaged in traditional, party-related as well as political protest activities while young women prefer participation in informal groups (e.g. Gaiser, de Rijke 2010). Furthermore, the existence of a migration background is negatively associated with diverse forms of political participation, but certainly differences in

education can explain this finding (e.g. Gaiser, de Rijke 2010; Heß-Meininger 2000).

Hypothesis. Before taking a closer look at my own empirical evidence, what is expected here and how could the expectations be explained shortly? – To sum up, I presume that the (perhaps in bivariate analyses existing) separate effect of subjective political competence *and* political knowledge on political action overlap and that in multivariate analyses subjective political competence is a stronger (or the only remaining) predictor of (intended) political participation. I follow the assumption of action theoretical models that control convictions – rather than (possibly even not known) objective competences – are most important to initiate political action. In addition, there might be different effects of (different kinds of) objective vs. subjective political competences on different forms of political engagement. As mentioned above, political knowledge seems to be important especially for voting while for other forms of political engagement subjective competence might be more important. Since several empirical studies have shown the importance of political knowledge for voting behaviour this mediation should not appear for participation in elections. Whether political reasoning yields another and different pattern than political knowledge or it is important for other forms of participation is also going to be examined: Probably there are different patterns and effects for political knowledge vs. political reasoning. Thus, subjective political competence is expected to mediate the statistical influence at least for non-electoral political engagement especially for political knowledge, whereas (due to missing substantiated empirical evidence) for political reasoning no specific pattern is hypothesised in advance.

3. Operationalisation of central variables and realisation of the study³

3.1 Sample and realisation of the study

Research was conducted in March/April 2010 as subsidiary part of a greater study with university students. To get a relatively homogeneous sample, only students who had the German citizenship and who acquired their school-leaving qualification in Germany are included because the assessment referred to the German polity (i.e. knowledge that should be learned at *German* schools). In this way, the sample consists of 76 university students of the local department of psychology.

At that department, every test subject filled in a paper-and-pencil-test answering the competence questions where the subjective measures were presented before the objective ones. Before that, the participants answered an online questionnaire about their past political activity and their intentions to engage

2 Besides, the pattern of wrong, correct and “don’t know” answers differs by gender (Westle 2005; 2006; 2009; Westle, Johann 2010) and women seem to possess less “conventional” political knowledge while performing better in the policy-knowledge dimension (Stolle, Gidengil 2010).

3 Analyses were calculated using Mplus 6 resp. SPSS 18.



in politics among other things. All questionnaires were written in German and all students got a special kind of credit which all of them need to complete their studies, so there should not be any motivation-based selection bias.

The mean age of the respondents is 23 years, ranging from 19 to 36 years of age. On average the participants were in the second (51 %) or the fourth semester of their studies (29 %). Most of the rest participated before the semester turn and were in their first semester at university (15 %). Corresponding to the gender distribution at the department of psychology most of the respondents are female (almost three of four). Furthermore, nearly half of them have a migration back-

ground whereas 53 % live in Germany for at least the third generation.

3.2 Operationalisation of political competence

Subjective political competence. A six-item index for measuring subjective political competence is used. The items were developed based on the work of Krampen (1991), Falter, Gabriel and Rattinger (2000), and Pickel (2002). The six-item index is of high internal consistency ($\alpha = .91$), and the confirmatory factor analysis confirmed the assumption that all items load on only one factor (Moosbrugger, Schermelleh-Engel 2007; see figure one).

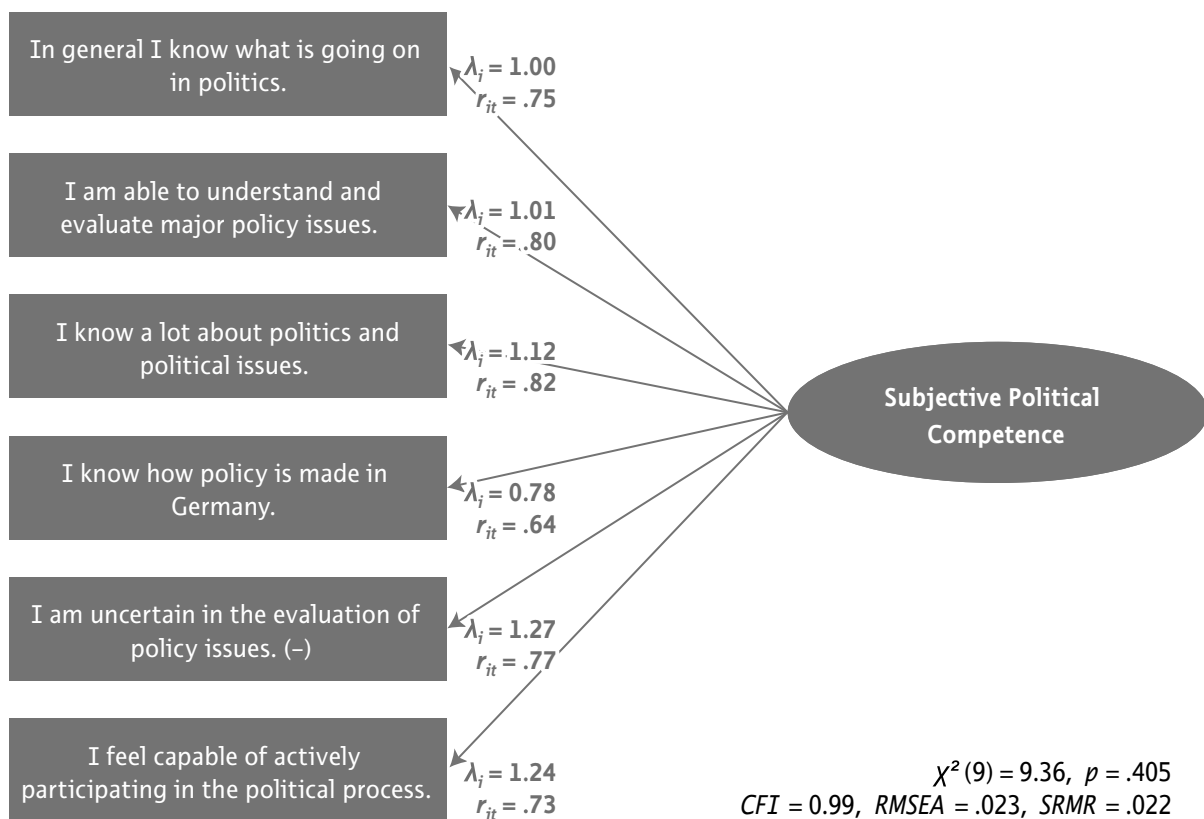


Figure 1: Confirmatory factor analysis for subjective political competence (unstandardised factor loadings (λ_i), item discriminations (r_{it}), and fit indices). (Items translated into English – original item language is German.) Scale marking: 0 = not true at all ... 4 = absolutely true.

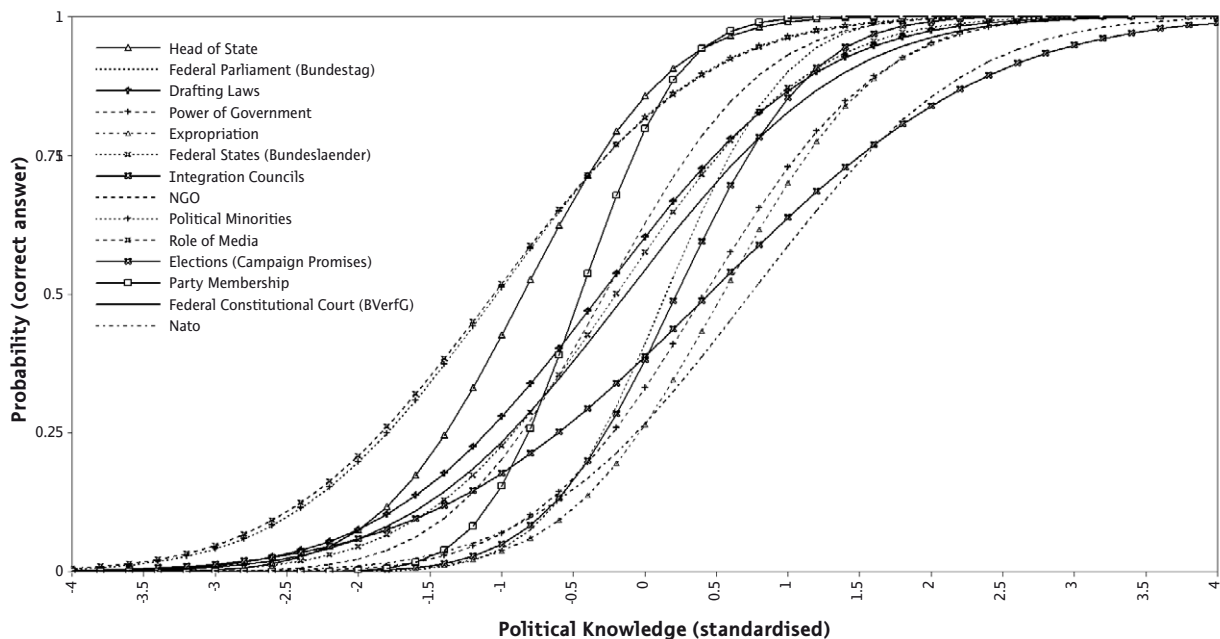


Figure 2: Item Characteristic Curves (ICC) for the 14 test items selected for analyses using a 2PL-Birnbaum model.

Objective political competence. For developing an original and (for university students) adequate political knowledge test I fell back on the work of Greve et al. (2009), Fend (1991), Ingrisch (1997), Krampen (1991; 2000b), Price (1999), Schulz and Sibberns (2004), and Westle (2006). According to a pretest, 29 items were selected for the final assessment⁴. After data collection, every knowledge item was dichotomised (wrong vs. right answer)⁵, and 15 items were removed due to missing selection criteria⁶. The 14 remaining items (figure two) showed a very good adaptation to a one-dimensional model (Hu, Bentler 1999; Muthén 2004) and, thus, were weighted by their item discrimination parameter (Rost 2004, 134 f) and summed to the

index “political knowledge”: $\chi^2(77) = 70.03$ ($p = .700$), $CFI = 1.00$, $RMSEA = 0.00$, $WRMR = 0.699$ ($\alpha = .73$).

Furthermore, because dichotomisation might have led to a loss of information and because structural knowledge may be overrepresented in the overall knowledge index despite weighting all items, two items measuring more or less symbolic political knowledge (i.e. “Elections” and “Party Membership”, see figure two) were differentiated into 13 binary items⁷. Though significantly correlated ($r = .67$, $p < .001$), this two-dimensional model again proved to be adequate: $\chi^2(274) = 278.89$ ($p = .407$), $CFI = 0.99$, $RMSEA = 0.15$, $WRMR = 0.796$. Therefore, besides the overall knowledge index two weighted indices for symbolic ($\alpha = .86$) and for structural political knowledge ($\alpha = .67$) were constructed as well (see also 2.2.1; Delli Carpini, Keeter 1996; Jennings 1996; Johann 2010). Moreover, all analyses were calculated for both dimensions separately as well as for the overall knowledge index (only the results for the last one will be reported unless there are significant differences compared with the other two despite the strong correlation between both dimensions).

In addition to the factual knowledge items, the students were presented three open question forms to measure their ability to political analysing and reasoning, modelled on Andreas et al. (2006) and Massing and Schattschneider (2005). Approximately one

4 Most of the items were multiple choice items with one correct and three incorrect options. The complete test can be obtained from the author.
 5 Although correct knowledge, wrong knowledge and missing knowledge (“don’t know” or leaving the question out) are different aspects (e.g. Johann 2008; Mondak 1999), missing values were treated as wrong answers. This is in line with the usual definition of knowledge which includes that one has to believe that one’s own answer is correct, and with the finding that answering “don’t know” indeed seems to indicate missing knowledge (e.g. Luskin, Bullock 2005). Furthermore, there are too little cases to undertake separate analyses regarding this question.
 6 A 2PL-Birnbaum model was modelled and tested (a guessing parameter was not introduced for several reasons). To compute the knowledge variable(s), classic and probabilistic test theory were combined (cf. Bortz, Döring 2006; Greve et al. 2009; Kelava, Moosbrugger 2007; Moosbrugger 2007; Rost 2004): Finally, only items with item difficulties within the interval $0.20 \leq p_i \leq 0.80$, with item discriminations $r_{it} > .20$, and which contributed significantly and positively to the construct were included (for symbolic knowledge, the criteria were softened slightly; see below).

7 That is possible due to the question form of these two items because here all respondents had to match parties and their campaign promise(s) resp. (socio-)political organisations and corresponding representatives. For structural knowledge, each of the resulting 13 items was coded 0/1 (incorrect/correct match) (whereas for the overall index these items were coded 0 for a maximum of 50 % correct matches and otherwise 1).



month after data collection, the answers were rated by two prospective teachers (male and female), and rerated four to six weeks later. The resulting coder reliabilities are all acceptable ($CR > .69$). Thus, the index "political reasoning" was computed using the mean of the ratings and adjusting them to a range from zero to one ($\alpha = .73$).

Table one in section four (4.1) presents the means, standard deviations and inter-correlations as well as Cronbach's Alpha for the competence and the political engagement variables. It can be seen that political competences are slightly above the scale centre. In addition, some significant statistical differences with regard to socio-demographic variables exist: Men score higher both on the knowledge indices (overall index: $t = -4.01, p < .001$; structural knowledge: $t = -2.92, p = .005$; symbolic knowledge: $t = -6.16, p < .001$) and on the subjective competence variable ($t = -3.80, p < .001$). Besides, for political reasoning and age a negative correlative association is found ($r = -.25, p = .029$). Migration background is not significantly related to any competence measure.

3.3 Measuring political participation

All respondents stated whether they had voted in the German parliamentary election in 2009, participated in conventional political activities (dichotomised measure of two items, e.g. participated in an election campaign), unconventional behaviour (sum index with five items, e.g. signed a petition), and non-normative, illegal political protest (sum index with 6 items, e.g. blocked a house for political reasons) (no/yes for each item). For instance, this allocation is broadly analogous to Gaiser et al. (2010) and Heß-Meiningner (2000). Moreover, every student answered how likely he or she will participate in one of those actions in the future (0 = definitely not ... 4 = definitely). However, for electoral participation they were asked about any future political election in Germany. For illegal activities, with regard to social desirability of the responses, the students answered how much they sympathised with people taking part in those activities (0 = do not understand at all ... 4 = completely understand). The dimensionality for conventional ($\alpha = .47, r = .31$) vs. unconventional activities ($\alpha = .81$) as well as for non-normative political protest ($\alpha = .86$) was verified using principal components analysis.

Additionally, the students were asked if they had participated as pupils at their school, i.e. if they had been a member of the pupil representation, class or vice-class president, or if they had been engaged in a protest movement at their school (no/yes for each item). Furthermore, they stated how probable they will engage in several activities at their university (0 = definitely not ... 4 = definitely). These activities are: voting in an election to the student council, attending a student assembly, participating in a protest movement, becoming a member of the student council ($\alpha = .81$).

On the one hand, a high readiness to engage in future elections, a low appreciation of non-normative political protest and a missing actual as well as intended engagement in conventional actions is noticeable (table one, 4.1). On the other hand, school participation (performed in the past) differs substantially according to the respective activity asked for, whereas the readiness to engage at university is quite low (table four, 4.4). Moreover, men participated more often in conventional and illegal political activities in the past but are less likely to vote in future elections. Furthermore, younger students tend to be more sympathetic for non-normative political protest and again the existence or absence of a migration background shows no significant bivariate association with any of the variables of interest.

4. Empirical evidence: Students and the subjective-objective-question

4.1 Bivariate correlative analyses

According to the (bivariate) inter-correlations of the variables of interest (table one), subjective competence is a strong predictor of (intended and past) political participation throughout – with exception of intended participation in future elections and acceptance of non-normative participation. What can be seen, too, is that structural political knowledge is significantly associated with political analysing and reasoning and with participation in the election while there is a tendentious positive correlation with unconventional participation in the past. Knowledge is only with conventional participation associated significantly. However, symbolic political knowledge shows a medium and negative effect on the acceptance of illegal political activities.

Table 1: Means, standard deviations, internal consistency, and inter-correlations of the central variables¹

	<i>M</i> ²	<i>SD</i> ²	α^2	<i>Political competences (objective/subjective)</i>					<i>Political participation (past)</i>				<i>Political participation (intention/sympathy)</i>					
				01	02	03	04	05	06	07	08	09	10	11	12	13		
01 Political knowledge (overall index) (0...7.476)	4.07	1.68	.73															
02 Structural knowledge (0...5.892)	3.25	1.33	.67	.96***														
03 Symbolic knowledge (0...9.742)	6.41	2.76	.86	.79***	.26*													
04 Political reasoning (0...1)	0.63	0.19	.73	.21*	.52***	.24*												
05 Subjective competence (0...4.286)	2.17	0.91	.91	.57***	.20*	.09	.11	.20*										
06 Voting in general election 2009 (0/1)	0.87 ³	0.34	-. ⁴	.16	.10	.05	.06	.03	.06	.34**	.28*	.09						
07 Conventional participation (0/1)	0.16 ³	0.37	-. ⁴	.19	.41***	.38***	.30**	-.01	.44***	.24*	.19*							
08 Unconventional participation (0...5)	1.82	1.31	.55															
09 Non-normative/illegal participation (0...6)	0.61	1.26	.76															
10 Voting (0...4)	3.72	0.81	-. ⁴															
11 Conventional participation (0...4)	0.91	0.82	-. ⁴															
12 Unconventional participation (0...4)	2.19	0.98	.81															
13 Non-normative/illegal participation (0...4)	1.69	0.76	.76															

- 1 For all variables, the range is given in brackets in the first column.
- 2 *M* = mean, *SD* = standard deviation, α = Cronbach's Alpha.
- 3 The mean corresponds to the percentage of respondents who engaged in the mentioned activity/activities.
- 4 Index consisting of only one or two items. Thus, Cronbach's Alpha is not reported.
- 5 Significant correlations are denoted as follows: ***: $p \leq .001$, **: $p \leq .01$, *: $p \leq .05$; +: $p \leq .10$

In the following, regression analyses for past political engagement and intended political participation are presented. The predictor variables were entered in four blocks: first the knowledge or reasoning variable(s), then subjective political competence, finally socio-demographic control variables (age, gender, migration background), and in a last step the related past political activity variable was also included (for the intention variables as criteria). With respect to the small sample size, more than the mentioned controls could not be considered as further variables in the analyses⁸.

8 According to the empirical evidence reported in chapter two and since educational level is equal for all respondents, these three are the most important socio-demographic control variables to be considered. Furthermore, it should be noted that age and gender are not normally distributed, i.e. there were more women and more than 77 % between 19 and 23 years old. Because one respondent did not answer the question about gender, in the third step the sample size is reduced to $n = 75$. Nonetheless, the findings for the first two steps also hold if this case is excluded.

4.2 Past political activity

Past political activity is not logically dependent on actual political knowledge but one may argue that the knowledge might have already existed before the engagement (especially since the respondents were young adults and had already left school; cf. Jennings 1996). Because of this (cross-sectional) difficulty of the causal relation between knowledge and engagement, the two relevant regression analyses are just presented in brief. Here only the knowledge variables were included while later a further look on the reasoning variable follows⁹.

According to the *t*-test, students who voted in the election to the German parliament in 2009 obtained

9 This is because of the missing bivariate correlations between political reasoning and past political activity. Likewise, additional multivariate analyses with past engagement as dependent variables yielded no significant results for political reasoning.



significantly more points in the knowledge test than students who did not vote. This is true especially for structural political knowledge ($t = 2.13$, $\beta = .24$, $p = .036$): students who participated in the election are more knowledgeable than those who did not participate while there is no such relation for subjective political competence. Furthermore, while the overall index of political knowledge is not significantly related to participation in the election in the logistic regression analysis (with voting as *criterion*), structural political knowledge is ($Wald = 4.03$, $OR = 1.79$, $p = .045$; $Nagelkerke-R^2 = .11$). As already in the t -test, subjective political competence is not significantly related to the criterion of interest in the bivariate logistic regression model ($Nagelkerke-R^2 = .07$), and including this variable into the analysis with political knowledge loosens the significance of the knowledge variable without explaining much more of the variance in the criterion ($Nagelkerke-R^2 = .12$). Including control variables does not change the observed pattern, but excluding the subjective political competence leads to (sometimes marginally) significant results for the structural knowledge variable. In summary, political knowledge – especially the structural facet of it – might be the more important variable in explaining participation in political elections (though political knowledge is not significantly related to voting intentions it may, however, be a determinant of *actually executing* the behaviour).

Looking at the ordinal regression analysis for participation in unconventional political activities in the past one finds a positive and significant effect of the overall index of political knowledge ($Wald = 3.60$, $OR = 1.28$, $p = .048$; $Nagelkerke-R^2 = .05$). Interestingly and as hypothesised, including subjective competence drops the knowledge variable out of significance

($Wald = 0.06$, $OR = 1.04$, $p = .809$) while only the newly included variable is significant ($Wald = 6.78$, $OR = 2.10$, $p = .009$; $Nagelkerke-R^2 = .13$). This time it seems that subjective political competence is the more powerful predictor of political engagement (figure three), because the mentioned result holds even if control variables are included. In any case, the “mediation” of political knowledge via subjective competence is statistically significant (Sobel test: $z = 2.85$, $p = .004$) (though one should be careful to speak of a fully mediation because of the cross-sectional difficulty regarding the causal direction).

4.3 Readiness to engage politically in the future

For political knowledge, only the intention to participate in conventional political activities in the future shows a significant and positive association (except the positive relation between symbolic knowledge and acceptance of non-normative political actions, see below). The two-step analysis with political knowledge and subjective political competence clearly confirms the assumption (figure three): Though structural knowledge is significant in the first step ($t = 2.11$, $\beta = .24$, $p = .038$; $R^2 = .06$), in the second step this variable drops off significance ($t = -0.11$, $\beta = -.01$, $p = .913$). Then only subjective competence is a predictor of readiness to participate conventionally ($t = 3.50$, $\beta = .45$, $p < .001$; $R^2 = .19$). Again, the Sobel test confirms a significant mediation ($z = 3.01$, $p = .002$). Considering the socio-demographic control variables or/and past political activity, only subjective political competence remains significant. Consequently, political knowledge seems to be wrapped up in the subjective measure of competence and therefore does not have explanatory power itself anymore.

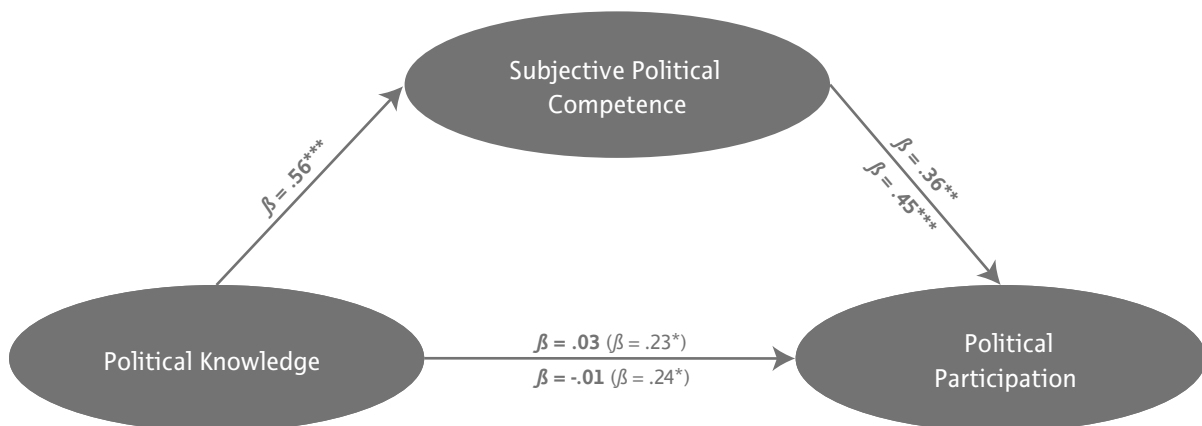


Figure 3: Subjective political competence as mediator of overall political knowledge for the criterion (1) participation in unconventional political activities in the past (above), respectively (2) willingness to conventional political participation in the future (below) (standardised coefficients).

***: $p \leq .001$, **: $p \leq .01$, *: $p \leq .05$

Interestingly, this pattern does not hold for political reasoning and analysis (table two). If political knowledge is replaced by the variable just mentioned, both political reasoning as well as subjective political competence are significant and positive predictors of readiness to engage in conventional political action (model one). Thus, the statistical importance of the objective ability to analyse and think in political contexts is more or less independent from the influence of subjective

political competence – even when controlled for socio-demographic variables (model four). Model two further indicates that objective political knowledge is not independently associated with the intention to participate. In addition, models three and five show that participation in past conventional activities does not change anything, although it might be surprising that reported (past) behaviour is not importantly related to the intention to act in a similar way in the future.

Table 2: Linear regression analyses for readiness to participate in conventional political actions (standardised coefficients)

	Model 1		Model 2		Model 3		Model 4		Model 5	
	β	<i>t</i>	β	<i>t</i>	β	<i>t</i>	β	<i>t</i>	β	<i>t</i>
Political reasoning/analysing	.279**	2.75	.286**	2.78	.280**	2.76	.244*	2.25	.242*	2.23
Subjective pol. competence	.394***	3.88	.428***	3.50	.359**	3.23	.470***	4.07	.437***	3.56
Political knowledge (overall)			-.062	-0.51						
Past conventional pol. activity					.086	0.78			.090	0.80
Age							-.076	-0.72	.083	0.78
Gender (female/male)							-.150	-1.31	-.159	-1.38
Migration background (no/yes)							-.042	-0.40	-.043	-0.41
<i>R</i> ²	.268		.271		.274		.297		.303	

***: $p \leq .001$, **: $p \leq .01$, *: $p \leq .05$

Remarkably, this analysis yields a different result than the following one, where the willingness to participate in unconventional political activities in the future is the criterion (table three). This time, again the ability to political reasoning remains positively and significantly related to the criterion. But the index for subjective competence loses its significance (model one). Therefore, not the subjective perception of being a politically competent citizen seems to be important but the objective ability to analyse political contexts and to argue politically. However, when controlled for the three socio-demographics, subjective political competence regains its previous

significance (model three). But still it should be noted that the objective competence variable appears to be a very important predictor of readiness to engage in (non-electoral) legal political actions in the future, whereas the subjective competence variable may vary in its effect depending on the items included. This conclusion is supported by models two and four where one can see that under control for past political activity (which itself is a very important positive predictor) only the objective measure of political reasoning is significantly and positively related to the intention to engage using unconventional but legal political means.



Table 3: Linear regression analyses for readiness to participate in unconventional political actions (standardised coefficients)

	<i>Model 1</i>		<i>Model 2</i>		<i>Model 3</i>		<i>Model 4</i>	
	β	<i>t</i>	β	<i>t</i>	β	<i>t</i>	β	<i>t</i>
Political reasoning and analysing	.246*	2.20	.244**	3.15	.281*	2.41	.240**	2.97
Subjective political competence	.204+	1.83	-.079	-0.94	.267*	2.15	-.005	-0.06
Past unconventional pol. activity			.737***	8.92			.726***	8.77
Age					.083	0.72	-.026	-0.33
Gender (female/male)					-.207*	-1.68	-.173*	-2.03
Migration background (no/yes)					.139	1.22	.068	0.86
<i>R</i> ²	.118		.581		.185		.617	

***: $p \leq .001$, **: $p \leq .01$, *: $p \leq .05$, +: $p \leq .10$

Finally, in table one, symbolic political knowledge is positively related to the acceptance of illegal political protest. No other variable shows any significant bivariate association to the last-mentioned activities, and even in multivariate analyses when subjective competence, participation in non-normative political activities in the past or/and the three socio-demographic variables are entered into analyses, symbolic knowledge is tendentially significant (while only non-normative past political behaviour itself is significant) (no table). Under additional control for structural political knowledge, symbolic political knowledge is still significantly related to sympathy for illegal political participation ($t = 2.04$, $\beta = .30$, $p = .046$; $R^2 = .37$).

4.4 Excursus: Participation in school and at university

The correlative results for school and university engagement are presented in table four (correlations with political participation are not discussed in detail though presented in brief). Additional *t*-tests yield that former participants in a pupil representation at school score higher on nearly all competence vari-

ables: they have more political knowledge (overall index: $t = 2.21$, $p = .031$; structural knowledge: $t = 2.23$, $p = .028$), a higher ability to political reasoning ($t = 2.00$, $p = .049$), and they report significantly higher subjective political competence ($t = 2.42$, $p = .018$). Surprisingly, the answer on that variable results in no bivariate difference for political participation.

Students who had been (vice-)class president at school are also more subjectively competent ($t = 2.49$, $p = .015$), but furthermore, they more often participated in the general election in 2009 ($t = 2.18$, $p = .036$) and unconventional past political activities ($t = 2.31$, $p = .024$). Moreover, they report a higher willingness to engage in unconventional political actions ($t = 2.04$, $p = .045$). Finally, students who were part of a protest movement at their school feel subjectively more competent ($t = 3.47$, $p < .001$), are more likely to have participated in conventional ($t = 2.38$, $p = .021$), unconventional ($t = 2.75$, $p = .008$), as well as non-normative political activities in the past ($t = 2.02$, $p = .049$), and they are more willing to participate in conventional political activities in the future ($t = 2.41$, $p = .018$).



Table 4: Correlations between participation at school/university and political competences and political participation

		<i>Member of pupil representation at school</i>	<i>(Vice-)Class president at school</i>	<i>Participation in school protest movement</i>	<i>Readiness to participate at the university</i>
Mean		0.33 ¹	0.66 ¹	0.42 ¹	1.83 ²
Standard deviation		0.47	0.48	0.50	1.00
<i>Political competences (objective/subjective)</i>	Political knowledge (overall)	.25*	.18	.17	.12
	Structural knowledge	.25*	.20*	.19*	.10
	Symbolic knowledge	.18	.09	.18	.10
	Political reasoning	.23*	.13	.03	.17
	Subjective pol. competence	.27*	.28*	.37***	.33**
<i>Political participation (past)</i>	Voting in general election 2009	.18	.29*	.18	.23*
	Conventional participation	.00	.08	.29*	-.11
	Unconventional participation	.16	.26*	.30**	.62***
	Non-normative/ill. participation	.18	.11	.25*	.52***
<i>Political participation (intention/sympathy)</i>	Voting	-.04	.06	.16	.22*
	Conventional participation	.13	.11	.27*	.31**
	Unconventional participation	.16	.23*	.20*	.74***
	Non-normative/ill. participation	.13	.16	.07	.49***

1 Mean corresponding to the percentage of interviewees that executed the activity.

2 Range: 0..4.

***: $p \leq .001$, **: $p \leq .01$, *: $p \leq .05$; *: $p \leq .10$

One should be aware that this behaviour took place in the (obviously since many month if not years closed) past. Therefore, in the following the competences are modelled as dependent on school engagement. Here a mixed pattern can be found: firstly, the membership in a student representation is a significant predictor of political knowledge ($t = 2.21$, $\beta = .25$, $p = .031$). Controlled for socio-demographics, significance slightly exceeds five per cent ($t = 1.96$, $\beta = .21$, $p = .054$) (male gender, then, is positively significant). Secondly, while for political reasoning having been a student representative is only narrowly significant in the bivariate regression analysis ($t = 2.00$, $\beta = .23$, $p = .049$), its p -value declines under control for the socio-demographic variables ($t = 2.12$, $\beta = .24$, $p = .031$) (age has a significant positive effect). And finally, for subjective political competence one finds a comparable result: the bivariate finding ($t = 2.42$, $\beta = .27$, $p = .018$) remains nearly stable in the multivariate analysis ($t = 2.22$, $\beta = .23$, $p = .030$) (male gender is significantly related to that criterion). For having been the (vice-) class president at school and for participation in a school protest movement the bivariate findings related to political competences do not change. To sum up, participation in school seems to be of higher predictive value for subjective competence and political reasoning while for knowledge school participation

is not such an important predictor any longer when controls are included.

Lastly and as depicted in table four, in bivariate analyses only subjective political competence is significantly and positively related to the readiness to participate at university in the future. Furthermore, all three items for past participation at school correlate only marginally with that intention ($.20 < r < .21$ with $.05 < p < .01$), and detailed analyses do not reveal any considerable result regarding objective competences either, so no detailed analysis is presented.

5. Summary of main findings

In summarising the findings, the hypothesis was confirmed at least partially: Indeed, political knowledge (esp. its polity facet) seems to have an original or at least a stronger effect on voting than subjective political competence. Since that could not be verified for the intention to vote in future elections the finding remains equivocal¹⁰. Nonetheless, for (past) unconven-

10 However, the different links between political knowledge and voting in 2009 resp. intentions to vote may be due to the fact that the intention was not merely related to general elections but also e.g. local elections. If in contrast voting had influenced actual political knowledge one probably would have expected a stronger association for symbolic than for structural knowledge.



tional political activity as well as for intended conventional political participation a complete mediation of political knowledge via subjective political competence was found. These results are in line with international research (e.g. Schulz et al. 2010a; 2010b) and support the hypothesis that political knowledge may be more important for voting, whereas for non-electoral normative accepted engagement knowledge is mediated through subjective political competence. In addition, already bivariate analyses indicated the very relevance of subjective competence for non-electoral political participation as well as for the intention to engage at university. Consequently, subjective political competence may be important for political activities that require higher effort than merely going to the polling booth and casting one's vote.

Surprisingly, the pattern for political reasoning is quite different, indicating that it differs qualitatively from political knowledge: For the intentions to engage in conventional and unconventional political action the competence of analysing and reasoning has strong and more stable positive effects than subjective political competence throughout. Although the subjective competence variable predicts political action, analytical abilities are something different with original potential to predict engagement or behavioural intentions (that are strong predictors of actual action; Ajzen 2001). Thus, the role of subjective competence may vary in its effect on intentions to engage in legal political activities depending on (profound) objective competences.

Finally, in multivariate analyses gender was the only socio-demographic control variable that sometimes emerged as significant predictor of participation. The effects for gender coincide with actual research since young women are more likely to engage in unconventional political activities while (at least in bivariate analyses) young men seem to be "conventionally" active (e.g. Gaiser, de Rijke 2010). Missing significances for age may be due to the homogenous age distribution within the sample, and the absence of effects of migration background might appear because of the same level of education of all respondents (German A level).

6. A developmental perspective? – Concluding remarks, additional theoretical considerations and future analyses

Conclusively, some further findings remain to be considered in addition. For example, since there is a significant effect of political reasoning on intentions to engage legitimately but not on actual/past behaviour, this finding should be questioned in detail. Possibly that can be interpreted as evidence for an alternative assumption: Maybe the students had not been competent enough in the past but now they have devel-

oped their ability to reasoning to a great extend so that this competence evolves its original effect only now. In contrast, knowledge as possible precondition of political reasoning could be wrapped up in the subjective assessment of one's own political competence in university students whereas now political reasoning emerges as an independent causal component of participation. Conversely, it could also be that students who are more competent in the way of political reasoning tend to state that they intend to engage legitimately because they might perceive political engagement as (allegedly or actually) social desirable.

However that be, the mentioned finding gives chance to consider two antagonistic ideas of possible relations between different political competences and political participation from a developmental perspective: A1 – On the one side, it is reasonable that – presumably because of the adjustment or adaptation of the subjective to the objective competence – while for children the objective measure might be an independent predictor of actual participation on its own (above or at least besides subjective competence), for grown-ups (starting from late adolescence) the subjective measure is probably just as good as or maybe even better than the objective dimension of political competence in predicting real political participation. A2 – On the other side, conceivably because of the children's rudimentarily political knowledge, an elementary ability to reasoning, and also missing possibilities to engage politically, merely their subjective competence may be a predictor of intentions to engage in politics. When the objective competences are developed (in late adolescence or early adulthood), however, these possibly absorb the importance of subjective competence. Therefore, in the following some theoretical considerations on aspects of development of political identity during adolescence and early adulthood are depicted shortly.

Following Oerter and Dreher (2002; Fend 1991; Reinders 2003; Torney-Purta 2004), in adolescence the attitudinal foundations for a socially responsible participation in society are set and political identity evolves. Most important for taking on political responsibility as a citizen is early adulthood, meaning that from age 18 on the young adult does not merely think about social and political coherences but also increasingly tries to participate in society and in the political realm (Krampen, Reichle 2002; Oerter, Dreher 2002). Hence, the developmental-psychological and the social cognition perspective can be combined with the action-theoretical model of political participation: Cognitive and moral development are narrowly associated with the development of political attitudes and competences (political reasoning and opinion making, political activity as part of finding one's own identity), and (subjective) political competences are necessary to engage in political action (e.g. Preiser 2002; see also



sections two and four). That also includes the acquisition of political knowledge as a foundation for other political competences (2.2). Thus, while the media usually depicts the political in singular cases, people normally acquire their factual political knowledge and knowledge about the political system by attending civic education classes at school (e.g. Rippl 2008; Rattinger 2009). In addition, schools may foster other competences like cogitation, too, thereby setting possible prerequisites for active political participation. However, when the pupil has come of age (in a political sense), on average, big growth of political knowledge cannot be expected any further because of the now missing structured civic education (which appears to be very important for the acquisition of at least structural political knowledge; e.g. Jennings 1996).

Simultaneously, when children grow older they usually tend to judge their competences in a more realistic way (Butler 2005). Applied to the matter at stake, younger children often overrate their abilities, i.e. they might tend to overrate their actual political competence. But as they grow older, they should learn to rate their (subjective) political competence similar to their objective competence. Thus, the just mentioned two considerations A1 and A2 are imaginable: While during childhood both dimensions may be original and more or less distinct determinants of political action, the special role of objective competence (or at least political knowledge as prerequisite of other political competences) might now be completely adapted on or added up in the subjective competence. Therefore, the role of objective political knowledge or competences might statistically and at first sight diminish in favour of subjective competence (A1).

Reversely, it is reasonable that due to only elementary education during childhood merely subjective competence may be a predictor of intentions to engage in politics. When the objective competences are developed, however, these possibly absorb the importance of subjective competence or emerge as equal and independent predictors besides subjective political competence (A2)¹¹. Thus, while children and young adolescents probably have not developed their political competences completely, they perhaps intend to participate in future elections but not in other political activities (e.g. Schulz et al. 2010a; 2010b) because they even are not and potentially also do not feel competent enough to engage in the last-mentioned. Therefore, maybe only children who feel competent intend to engage in other forms than voting whereas from late adolescence on people may have evolved objective political competences so these could develop original effects on several forms of political engagement besides voting.

¹¹ That could explain the findings of Johann (2010) referred in section two (2.2.2) since he analysed a sample of adults.

To summarise the preceding considerations, the main hypothesis this article is based on would refer to A1: Since during childhood and early adolescence objective competence and subjective assessment differ considerably, both may have separate effects on participation independent of each other – what is presumed not to be true in early adulthood. Possibly, due to civic or social engagement in school as well as civic education, subjective political competence raises and with it the readiness to participate in political action. The perhaps existing separate effect of subjective and objective political competence on participation may more and more overlap because of the more realistic estimation of one's own competence according to school assessments and the growing actual political knowledge acquired through civic education classes and the media.

At least for the mediation of political knowledge via subjective competence on conventional participation in the past and intended unconventional engagement in early adulthood empirical evidence was presented. However, for political reasoning no such mediation appeared. This result might be indication for A2, and it could also be interpreted in the way that political knowledge as prerequisite of political reasoning diminished in favour of subjective political competence as well as objective political reasoning. However, there is no strong correlation between knowledge and reasoning so this assumption is slightly precarious. Nevertheless, without longitudinal data no profound and ultimate proposition is possible – but it seems absolutely reasonable that various kinds of political competence and different facets of political knowledge have more or less *diverse effects on various forms of political action!*

Moreover, data on school participation has been presented: Participation in less demanding activities of manageable size at school is positively related to intentions to engage in the future in legitimate action. In contrast, having been a pupil representative might not only be important for raising subjective political competence. Unlike the other forms measured here, it could also be important in gaining (structural) political knowledge and in fostering one's competence to analyse politics. However, the role of schools in the process of political socialisation seems to be important (e.g. Jennings 1996; Rippl 2008; Rattinger 2009). Although no data could be presented for the argument that political knowledge may initiate political engagement in early adolescence, political self-efficacy (i.e. subjective political competence) may be strengthened through civic education and school participation and thus affect political participation in the long-term. It is a truism that schools foster political knowledge through civic education, and my own data slightly supports the assumption that school engagement may foster subjective political competence as well (table four), while positive relations between school participation and objective political compe-



tences appear to exist as well although to a weaker extend (esp. concerning political reasoning).

Finally, a further finding appears also to be interesting: Symbolic political knowledge is the only variable that has a (positive) significant relation with sympathy for non-normative political participation. There is no explanation for this very interesting finding yet, but one could assume that well informed (instead of naming them well-knowing because the symbolic facet contains merely actual information while the structural part includes longer-termed and “substantial” facts) people who know the politicians and their related parties/organisations and who correctly remember the promises politicians gave during the election campaign are possibly more frustrated or disappointed by politics and politicians. Their knowledge may come from a particular media use; maybe they have engaged in a normative way in the past but did not have success. Hence, these students might not believe in or trust the legitimate ways of political participation any more whereas they show sympathy for actions of political protest that are not legally accepted (Gamson 1971; furthermore, additional analyses of my own supplementary data tendentiously point to that direction). Anyway, symbolic political knowledge is superficial compared with structural political knowledge. Hypothetically, this differentiation makes the crucial difference: Maybe the more superficial symbolic political knowledge a person possesses (in addition to his or her structural knowledge), the more the person sees (legal) politics as a “shabby business”, and the more the person accepts, or possibly also engages in, illegal political protest – even under control for other variables and especially under control for the level of “profound” structural knowledge.

Anyway, the original effects of political knowledge seem to be mediated to a great extent by subjective political competence at least in early adulthood. If anything, then, compared with subjective political competence, political knowledge seems to have only (stronger) effects on voting or, in the case of symbolic knowledge, on sympathy for non-normative action. Because of the importance of political reasoning, schools should especially foster the ability to analyse political issues and to competently follow the media when reporting politics or policies since this is positively related to intentions to engage in legal political action (by not ignoring knowledge transfer). Therefore, civic education might be crucial in becoming a competent and active citizen.

One may, however, wonder about one variable not mentioned throughout this article: political interest. Indeed, political interest or involvement is also an important variable in explaining political engagement (e.g. Cohrs, Boehnke 2008; Neller 2002; Schneekloth 2010). Political interest usually is strongly and positively associated with subjective political competence

($r = .81$), thereby if introduced into regression analyses indicating collinearity ($VIF \approx 3$). Furthermore, if interest was included, too, only causal analyses would be appropriate because then the main question would be whether political interest stimulates knowledge acquisition or is at least influenced by subjective competence or reversely. Since there is no longitudinal data yet, no such analysis was presented. However, it should be noted that in every case where subjective competence mediated the role of political knowledge, the mediator variable itself was “mediated” or “outperformed” by political interest (though subjective competence instead of political interest was significantly related to conventional activity in multivariate analysis)¹². Because it seems reasonable that political interest is affected by actual knowledge¹³, in future research the causal relation will be investigated in detail.

In conclusion, several tasks remain for future research: firstly, longitudinal data to explore the causal role of subjective political competence and political interest relating political action will be collected. Furthermore, shortened knowledge indices are measured, too, because the by no means perfect correlations between objective measures and subjective competence indicate that both are partly different (Westle, Johann 2010). Thus, the causal association for all the mentioned variables will be explored in detail in future research including also measures for political trust and external political efficacy as they may have additional explanatory value. Moreover, a further aim would be to (re-)measure the ability to political analysing and reasoning using additional items and to include other explanatory variables as well (because of the small amounts of explained variance reported in section four).

Eventually, a last disclaimer: all findings reported here are for university/psychology students only. Therefore, they possibly will be not replicated for a general population sample or for people with lower degrees of education. Accordingly, a further task would be not only to look at a general population sample but at different *subsamples* (e.g. migrants). Thereby, also pedagogical intervention (or action) might be easier to implement into practical civic education if we knew what is appropriate or necessary for special target groups, while at the same time not neglecting the acquisition of a minimum level of *each* political competence to become a *competently active and reflective citizen*.

12 Nonetheless, political knowledge then again was no original source of political participation. It should be noted that, in contrast, for example Amadeo et al. (2002) found a stronger relation between the intention to vote in elections and political knowledge than between internal efficacy or political interest and intended voting in multivariate analyses.

13 Although path models have been explored they were not presented due to missing longitudinal data.



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