Participatory practices and political knowledge:

How motivational inequality moderates the effects of formal participation on knowledge¹

Abstract

Democracies rely upon politically knowledgeable citizens for their legitimacy and to sustain themselves. In

Australia, policy initiatives have addressed concerns about the low levels of political knowledge among young

people. Yet research about how young Australians acquire political knowledge, beyond schools, is scarce. The

present study referring to the concepts of situated learning, self-determination and knowledge gap, asks whether

young adult's participatory practices (e.g., participation in politics, prior involvement in decision-making at

school), predict political knowledge. Analyses that control for multiple predictors of political knowledge suggest

differential associations between political knowledge and different participatory practices. Motivational

inequality, as defined by interest in politics, moderates the associations with party-political participation and

participation at school; the conditional effect of party-related political participation is further moderated by

educational resources. Gendered differences are identified for some participatory practices. Directions for future

research and the importance of participatory experiences and how to establish a foundation of young citizens'

political knowledge are discussed.

Keywords

Civic participation; knowledge gap; news media; political interest; political knowledge; situated learning; youth

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1

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1 Introduction

For the legitimacy and sustainability of democracies, it is imperative that citizens are not only involved in decision-making processes, but they also must understand the political institutions and processes that yield political decisions. This requires a certain degree of knowledge about the political system, its historical evolution, the political actors and ways to participate in the political process; 'any notion of "the good citizen" must include some notion of "the informed citizen" (Delli Carpini 2000, p. 129). Yet scholars have long been concerned about low levels of political knowledge, which appears to be unequally distributed across different social groups (Civics Expert Group 1994; Delli Carpini and Keeter 1996; Niemi and Junn 1998; Reichert 2016c; Vromen 1995).

This study argues for the significance of citizens' political knowledge and its acquisition and asks whether political knowledge, despite its prescribed effects on future political behaviour, is associated with prior participatory practices among young adults. Specifically, we examine the associations between participation in a variety of civic and political activities and political knowledge. We further link the concepts of situated learning and self-determination and ask whether 'motivational inequalities' – that is, differences in the levels of interest in political issues – moderate the effect(s) of participatory practices. Finally, we analyse an under-examined derivation of the knowledge gap hypothesis by exploring differences across educational background.

2 The Australian context

Concerns about uninformed and inactive young Australians have long existed (Civics Expert Group 1994; Print 2007; Vromen 1995) with recent research revealing that '... respondents under 25 displayed much lower levels of knowledge' (McAllister 2016, p. 1226) than other adult Australians. Further, the Australian *National Assessment Program: Civics and Citizenship* (NAP-CC), which measures pupils' civic and political knowledge, reveals a decline in tenth grade students' levels of such knowledge since 2010 (ACARA 2017). Major research in democracies, such as the Citizenship Education Longitudinal Study in England (Keating et al. 2010), the National Assessment of Educational Progress in the United States of America (Wattenberg 2008) as well as the comparative International Civic and Citizenship Education Study (Schulz et al. 2017), reveal that levels of students' political knowledge are generally low.

Yet empirical research on the reasons for young adults' political knowledge acquisition is limited, particularly in Australia. Despite low levels of political literacy among the young, the mandatory nature of voting

and several policies that have addressed those concerns, youth enrolment stubbornly remains significantly below adult electoral participation (AEC 2015). Policies such as 'Discovering Democracy' provided substantial funding to raise political awareness, literacy, and participation (Print 2017), yet the NAP-CC monitoring of Australian pupils' political knowledge reveals that knowledge levels have declined (ACARA 2017).

Most of these initiatives focus on school transmission of political knowledge and skills, whereas research about young Australian adults beyond school is limited. Young adults are worthy of research as they are not directly affected by school policies and must engage politically by their own volition. International research on the political socialisation of young people suggests that school experiences are important for the acquisition of political knowledge (e.g., Jennings 1996; Niemi and Junn 1998). While there may be a hopeful flow-on school effect, a feature of young Australian adults is their low enrolment and voting rates and low levels of political knowledge (AEC 2015; McAllister 2016). Yet the transition into adulthood is associated with important changes to the life situations of these young people and seemingly affects their involvement in politics (Jennings and Niemi 1981; Jennings 2015). Indeed, research suggests that early adulthood may be a more formative period with respect to individuals' beliefs about and understanding of social and political matters than adolescence (Jennings and Niemi 1981; Schoon and Mortimer 2017), motivating the investigation of this group.

3 Conceptual framework

3.1 Political knowledge

Political knowledge may be defined as 'the range of factual information about politics that is stored in long-term memory' (Delli Carpini and Keeter 1996, p. 10). More extensive knowledge about polity, politics, and policy enables and encourages people to participate in political action (Galston 2001) and strengthens the consistency of political attitudes with behaviour (Delli Carpini and Keeter 1996). Unsurprisingly, political knowledge is often examined as a condition of political participation rather than a predictor of the latter. The present study, however, analyses how young people's participatory practices at an earlier time predict their political knowledge in our survey.

Quintelier and van Deth (2014) utilised self-perception theory and cognitive dissonance theory, according to which individuals aim to avoid negative emotions that can arise from behaviours that are inconsistent with their political attitudes and opinions. A possible consequence of perceived inconsistencies between both is an adjustment of their attitudes based on the evaluations of their own behaviours. Political participation might therefore raise politically relevant attitudes and cognitions, such as political interest and efficacy, and it can contribute to more consistent political beliefs and patterns of participation (Quintelier and Hooghe 2012).

McIntosh and Youniss (2010) frame these political socialisation experiences in the context of situated learning theory, according to which political knowledge and skills develop through participation in real-life political arenas. Interactions in shared activities should be particularly helpful in this process, as individuals can perceive themselves as meaningful actors contributing to the goals of their group or organisation, which may stimulate further interest, knowledge and skills, and sustain their participation (see also Lave and Wenger 1991).

McDevitt and Kiousis (2006) found that involving youth in voting campaigns is associated with a better integration of new information with existing knowledge. Others have shown that participation in political discussions is associated with higher levels of political knowledge (McIntosh et al. 2007). Political discussions can also be stimulated by exposure to political news and engagement in other political activities. Yet, despite its importance there is limited research on the associations between other participatory practices and political knowledge. In this study, we focus on recent civic and political participation as well as previous involvement in participatory activities at school.

3.2 Civic and political participation

Scholars have extensively discussed the concept of political participation. According to van Deth (2014, p. 351), political participation 'is depicted as an activity [...] understood as something done by people in their role as citizens [...] should be voluntary¹ and [...] deals with government, politics or the state in a broad sense of these words'. So broad is this concept that it now includes a wide range of activities. Consequently, we need to be selective in what we include as political participation while maintaining an inclusive understanding of citizens' participation with particular attention to young people (Harris et al. 2010; Vromen 2003; Vromen and Collin 2010).

We consider as formal political participation acts that extend beyond 'latent' forms of participation, such as news media use, in that these acts require a more active role of the individual. We adapt the typology examined by Ohme et al. (2017) and distinguish three variations of formal political participation: Participatory acts in a *political* institution or engagement with actors in these institutions ('party-political participation,' e.g., being a candidate in a political election); political protest and activities that refer to political actors or institutions without necessary direct engagement with them ('socio-political participation,' e.g., signing a petition); and participation in community organisations (often at the local level, such as collecting money for a neighbourhood project).

Among the few studies that analysed the effects of political participation on political knowledge, Jennings (1996) found a positive association between young Americans' political activity and their levels of political knowledge – primarily 'textbook knowledge' about governmental mechanisms – in longitudinal analyses.

To our knowledge, no similar study has been conducted in the Australian context. However, if situated learning occurs during participation in political activities, then individuals who participate politically should have higher levels of political knowledge. Johnson (2009), for instance, argues that civic experiences are more important than other socialisation influences when it comes to civic learning.

We expect that all three forms of political participation are positively associated with political knowledge, though the strength of these associations may differ between the three types. Participation in community organisations does not necessarily involve the transmission of knowledge about the political mechanics and is hypothesised to have the weakest positive association with such knowledge compared to other forms of political participation. On the other hand, party-political activities are at the heart of representative politics and should be associated with more exposure to and talks about political information. Therefore, the association between political knowledge and party-political participation should be positive and strongest among the three types of participation.

3.2.1 Schools as places for democratic participation

Schools are particularly relevant political socialisation agents for young people (Kahne et al. 2013; Niemi and Junn 1998; Reichert 2016b; Saha and Print 2010). In addition to learning through the formal curriculum, often translated as transmitting textbook knowledge about politics, school students can also learn through the informal curriculum that provides opportunities to contribute actively to decisions made at school (Print 2009). Through the informal curriculum students can participate in democratic political activities such as voting, standing for elections, and contributing to newspapers (Saha and Print 2010). These are among the experiences that are frequently considered when situated learning theory is used to explain political socialisation (McIntosh and Youniss 2010). Australian research, for example, suggests that pupils who engage in school elections are more knowledgeable and prone to engage in the political realm (Saha and Print 2010). It is reasonable to account for school experiences as these may facilitate political learning and, hence, predict political knowledge. We therefore hypothesise that participation in school is positively associated with political knowledge.

3.2.2 Motivational inequality

Interest in political affairs, often defined as the 'degree to which politics arouses a citizen's curiosity' (van Deth 1990, p. 278), reflects an aspect of political motivation (Reichert 2018). Although it is probably among the best predictors of political knowledge, most empirical studies do not account for the link between knowledge disparities and motivational inequalities. Due to the positive association between motivational variables and both

political knowledge as well as participation (McAllister 2016), differential effects are plausible. Communication scholars have argued that differential motivations to consult media sources might account for gaps in individuals' knowledge about politics (Kwak 1999; Hwang and Jeong 2009); expecting such a mechanism for the associations between political knowledge and participatory practices too is reasonable.

Self-determination theory provides insight to understanding potentially differential effects of motivated behaviour (Deci 1992). In this framework, the quality of such behaviour differs to the extent to which a person is interested in the respective activity and the associated content domain. A person who finds it rewarding to act and enjoys the activity may be intrinsically motivated. Extrinsically motivated behaviours are instrumental and undertaken for other rewards, such as money, school grades, or status. Deci (1992) further explains that interest is more central to intrinsic motivation, and that intrinsically motivated self-determined behaviours lead to enhanced learning outcomes. Accordingly, on one hand we expect that both political participation and interest are positively associated with political knowledge. On the other hand, self-determination theory suggests an interaction between behaviour and motivation such that knowledge growth should be accelerated when behaviour is motivated. We therefore argue that the (positive) association between engagement in participatory practices and political knowledge is stronger the more an individual is interested in political issues.

This hypothesis echoes the rationale of the study presented by Fraile and Iyengar (2014), who examined inequalities in political knowledge by hypothesising that 'attentive citizens are more likely to learn, [hence] exposure to news may increase the existing gap in political knowledge [...]' (Fraile and Iyengar 2014, p. 276). They showed that more frequent exposure to broadsheets is associated with a decline in the effect of political interest on political knowledge, which needs to be interpreted against the information-rich context of the European Union (EU) election campaign under analysis in their study.

3.2.3 Motivation contingency and education

Finally, the well-tested knowledge gap hypothesis states that high-status individuals benefit more from new information (e.g., by means of news exposure) than low-status citizens, who are hypothesised to have smaller gains when being exposed to news (Gibson and McAllister 2015). A similar association seems plausible for political participation and political knowledge. Education is a particularly meaningful proxy for unequal cognitive resources; people with better cognitive skills may find it easier to integrate new information and situated experiences with existing knowledge – they should learn faster through participatory experiences and especially when motivated (Gibson and McAllister 2015). Education can also be a powerful confounder as well-educated people might be more knowledgeable regardless of content domain. Therefore, we account for differences in

educational attainment and consider education as an additional moderator of the associations between participatory practices and political knowledge.

Specifically, we test a derivation of the 'motivation contingency model' (Kwak 1999), according to which the moderating role of motivation should be conditional on resource inequalities. We hypothesise that participatory practices are particularly strongly and positively associated with political knowledge among well-educated individuals who are politically interested. Conversely, that effect is assumed to be small or even negative among respondents with low levels of education and interest in political issues. The thin research base requires us to explore whether there are differences conditional on the type of participatory practice.

4 The present study

4.1 Study aims

This study builds on the presumption that citizens need a certain degree of political knowledge to be considered democratic citizens. We ask whether young people's participatory practices predict political knowledge. Such an effect on political sophistication would stress the significance of democratic political participation, given that adequate political knowledge is important for the quality of democracy.

Situated learning theory suggests that engagement in participatory practices can enhance political knowledge and skills (McIntosh and Youniss 2010). Following self-determination theory (Deci 1992), participatory experiences should be more strongly associated with higher levels of political knowledge if the actor is highly interested in politics. Finally, our elaboration of the motivation contingency model (Kwak 1999) assumes that the effect of participatory practices on political knowledge may be stronger for individuals with higher levels of education; we examine whether education further moderates the hypothesised interaction between participation and motivation.

Prior research has focussed on the effects of situated learning through service learning and political discussions (McIntosh and Youniss 2010), or on the effects of political participation on political attitudes (Quintelier and Hooghe 2012; Quintelier and van Deth 2014). This study examines a broader spectrum of participatory activities and their associations with political knowledge as an essential characteristic of active and informed citizens (Delli Carpini 2000; MCEETYA 2008). Furthermore, this study goes beyond the mere participation explanation of situated learning theory (McIntosh and Youniss 2010; Reichert and Print 2018) and is the first to examine whether mechanisms involving motivation and status might be at play. The findings of this study are therefore suited to extend the political theory on political socialisation. Furthermore, previous studies

have examined data from the US or Europe, whereas there is no such research on Australia, despite the national emphasis on active and *informed* citizenship (MCEETYA 2008).

4.2 Data

The data for this research were collected across Australia by means of an online survey. The questionnaire contained questions about respondents' political attitudes and knowledge, as well as their participation in political activities and news media use. Most items were based on NAP-CC (e.g., ACARA 2017) and the Australian Election Study (AES) (Bean et al. 2014). Constrained by our financial capacities, we utilised the access panel of MyOpinions to target a medium sized sample from Australians during a particularly formative time, at ages 19 to 24. Selection and screen out criteria accounted for the distribution of age and gender of Australian youths across all states and territories reflecting their relative population.

The target sample size was reached after 11 days and the survey was closed subsequently. The final sample includes 452 individuals, which corresponds to a response rate of 14.11% (incidence rate: 65.24%) of which 34.24% valid questionnaire completions were obtained (remainders dropped out; were screened out; or were excluded after data quality checks). For more accurate analyses, we calculated sampling weights based on the Australian Censuses of Population and Housing using a linear growth function. The weighted sample has a median age of 22 years, consists of 51% women, and 43% of our respondents or their parents were not born in Australia. About half have already obtained their first tertiary degree (53%). We also compared our sample with the corresponding age group in the AES 2013 (McAllister et al. 2014; Myers and Vickers, no date), and concluded that the quality of our sample is suitable for research purposes.

Specifically, the current sample is significantly larger than the AES subsample, which consists of 199 19- to 24-year old Australians.² As time can affect people's views we note that the AES collected data over a period of four months, whereas our sample was collected within 11 days. Also, young adults up to 24 years of age represent the smallest subgroup and yielded a below-average response rate in the AES. In addition, the AES surveys only citizens who are registered to vote in the election, which contributes to a bias in the AES sample insofar as young adults are the least likely age group to register (AEC 2015). It is plausible to assume that an important reason for this lies in a lack of political interest, efficacy and knowledge; and compared with the AES subsample of young adults, the current study relies on a sample that reports somewhat lower levels of interest in politics and political knowledge. It is also not unreasonable to assume that young individuals are more likely to respond to an online survey if invited via email.³ Finally, our weighted sample was comparable to the weighted

AES subsample with respect to socio-demographic characteristics. Hence, we are confident about the quality of our sample.

4.3 Measures

Eight questions about *political knowledge* primarily cover the polity and politics dimensions, measuring 'textbook knowledge' of 'the mechanics of the government and politics' (Jennings 1996, p. 229); our results need to be interpreted against this background. Single-choice questions with one correct answer and three distractors and questions where respondents had to decide whether a statement is true or false were used:

- 1. 'Australia became a federation in 1901.' (true/false)
- 2. 'The Constitution can only be changed by the High Court.' (true/false)
- 3. 'The Senate election is based on proportional representation.' (true/false)
- 4. 'Queen Elizabeth II is the Queen of Australia. Which of the following is one of the Queens duties in Australia?' (single choice)
- 5. 'In the Australian parliaments what is "the Opposition"?' (single choice)
- 6. 'Why is Australia's system of government based on the Westminster system from Britain?' (single choice)
- 7. 'Australia's system of government is described as "federal" because it has ... ' (single choice)
- 8. 'What is a legal appeal?' (single choice)

These items were recoded into correct, incorrect, and no answer/don't know before scaling them by means of a two-parametric logistic item response model. Missing answers were included using model-based estimations instead of treating them as incorrect. The estimated model fits the data very well ($\chi^2[20] = 20.96$ [p = .400], CFI = 0.997, RMSEA = 0.010 [CI = 0.000, 0.042]), and we adjusted the derived knowledge score to range from 0 to 1 (M = 0.67, SD = 0.25) to ease interpretability.

Participatory practices comprise self-reported participation in a variety of civic and political activities over the two years prior to the survey. Party-political participation reflects more traditional and institutionalised political activities (six items; e.g., stood as a candidate in local council or shire elections; $\alpha = 0.83$), while participation in socio-political activities comprises less committed, less institutionalised participatory behaviours (eight items; e.g., collected signatures for a petition; $\alpha = 0.82$). In addition, we measured participation in community and social movement-related organisations (four items; e.g., a human rights organisation; $\alpha = 0.70$). Upon confirmation of the dimensional structure (CFI = 0.97, RMSEA = 0.03), mean indexes were computed for the last two types, each reflecting the percentage of activities a participant had been active in. The mean index of

party-political participation was skewed and therefore recoded it into a binary variable (no activity versus at least one activity).

Furthermore, we asked our respondents whether they had had participated in activities at school, such as voting for class representatives, being a candidate in a Student Council, preparing a school magazine or other contributions to school decision making (not at all, not very much, quite a lot, a great deal). We also use an index of *interest in politics* as a potential moderator to reflect motivational inequality (seven items; e.g., interest in Australian politics; not interested at all, not very interested, quite interested, very interested; $\alpha = 0.88$).

In addition, the potential moderator and confounder educational attainment (max. secondary education versus higher educational attainment) was supplemented by age (in years), gender (male versus female) and ethnic background (first versus second generation Australian) as control variables (ACARA 2017; Fraile and Iyengar 2014; Vromen 1995, 2003). Finally, many studies have shown that news exposure is positively associated with political knowledge (ACARA 2017; McAllister 2016; Vromen 1995); some have labelled exposure to political news as a very passive, or 'latent' form of political participation (Ekman and Amnå 2012; Evans and Stoker 2016). Therefore, the frequency of political news media use was included as a control variable, measured as the mean of four items (i.e., reading the newspaper, watching TV news, listening to the news on the radio, using the internet to get news of current events; never or hardly ever, at least once a month, at least once a week, at least three times a week, at least once a day). The frequencies of all independent variables and their zero-order correlations with political knowledge are summarised in Table 1.

<Table 1>

4.4 Analytical procedures

The following analyses rely on the 446 cases with full information on all predictor variables. We employ a general linear model approach to examine the effect of participatory practices on political knowledge. As we employ sampling weights, a robust maximum likelihood estimator is used. Moderated effects are analysed following Brambor et al. (2006) by examining the effects of the predictor variables over the whole scale(s) of the moderator(s) ('regions of significance') using confidence intervals.

5 Results

5.1 Participatory practices

We begin by presenting the regression of political knowledge on the predictor variables (Model I in Table 2), excluding political interest. Participation in school and in community organisations are statistically irrelevant correlates of political knowledge when controlling for multiple predictors. In Model II, political interest unsurprisingly is a significant predictor of political knowledge, and participation in school becomes a marginally significant predictor.

<Table 2>

First, we see that the political knowledge score is higher the more interested the young Australian adults in our sample, given the levels of political news media use and participation are held constant. Second, respondents' reported participation in socio-political activities is associated with higher levels of political knowledge. Notably, the coefficients of the remaining participation variables are negative, suggesting that respective participation, especially participation in party-political activities, goes along with lower levels of political knowledge. Overall, the associations between participatory practices and political knowledge are weak among young Australians and somewhat unexpected. Moderation analyses may shed light on the question whether the associations between participatory practices and political knowledge are conditional on inequalities in respondents' differential motivation.

5.2 Interactions with motivation and education

Motivational inequality is specified by separate interaction terms between each predictor variable and political interest. First, we add the two-way interactions between participatory practices and political interest (Model III in Table 3). Two interactions are statistically significant. Inspections of the regions of significance of all participatory practices corroborate that (only) the associations between political knowledge and party-political participation as well as participation at school are conditional on respondents' interest in political issues (Figure 1). This closer inspection suggests that the negative coefficient for party-political participation only appears among respondents with average or below average levels of political interest. On the other hand, the negative coefficient for participation at school is only significant among highly interested respondents.

<Table 3>

<Figure 1>

We continue with the derivation of the knowledge gap hypothesis and examine whether the patterns for motivational inequality are conditional on resource inequalities using a multiple group design (respondents with low versus high education). The null hypothesis states that there are no differences between both groups, and we therefore start with a fully constrained model that does not allow differential associations among lowly versus highly educated individuals. We subsequently inspect the modification indices at the five per cent level of significance and remove the respective constraints. In a first step, we exclude the interactions between participatory practices and political interest which yields no significant differences in the associations between political knowledge and participatory practices among both groups (Model IV in Table 4). However, we find a positive effect of (female) gender on political knowledge among highly educated respondents, compared to an insignificant gender effect among other respondents.

<Table 4>

The final Model V shows that only the interaction between party-political participation and political interest differs conditional on respondents' education (Figure 2). On the one hand, the negative association between political knowledge and party-political participation among less interested respondents is significantly weaker for individuals with higher levels of education compared to those with maximum secondary education. On the other hand, that association turns positive among respondents with very strong interest in political issues and at the same time low levels of education.

<Figure 2>

5.3 Supplementary analyses

Owing to the identified interaction between respondents' gender and education, we also explore potential gender differences. With our moderate sample it is not possible to reliably examine gender as a third moderator, and we therefore explore its role in separate analyses. These analyses show that participation in community organisations is a negative predictor only among males. Similarly, news media use is significantly and positively associated with political knowledge among male respondents, but not among females. Further tests suggest that these associations hold among males with high levels of education, whereas we find no significant association between political knowledge and party-political participation among highly educated females.

Item-level analyses of the news media can be instructive and are also reported. On the one hand, these explorations suggest that the positive association between political knowledge and political news media use among men is primarily due to their more frequent exposure to newspaper news, and their less frequent use of the internet to gather political news. On the other hand, these analyses also reveal that gathering political news from the internet is positively associated with political knowledge; watching the news on television has a positive relationship with political knowledge only among individuals with tertiary education and below average levels of political interest.

6 Discussion

Political knowledge is often seen as an essential element of the good citizen (Delli Carpini 2000; MCEETYA 2008). Such knowledge may be acquired in distinct ways through news media use and participation in real-life political arenas ('situated learning'; McIntosh and Youniss 2010). In our study, we go beyond simple explanations and examine how participatory experiences are associated with political knowledge. Others have found that political participation is a stronger predictor of political attitudes than *vice versa* and suggested that participatory experiences are part of a person's self-perception (Quintelier and Hooghe 2012; Quintelier and van Deth 2014). That is, individuals might adjust their political attitudes and beliefs such that these are consistent with their behaviours (e.g., to avoid cognitive dissonance). However, this explanation does not account for *a priori* differences in respondents' motivation. In our study, we argue that prior participatory experiences may be positively associated with political knowledge ('situated learning'). Following self-determination theory, individuals who are interested in politics are also motivated to participate in politics, and motivated behaviour should be more strongly associated with political knowledge than unmotivated or extrinsically motivated behaviour (Deci 1992). Our study further incorporates the 'motivation contingency model' (Kwak 1999), according to which the moderating role of motivation should be conditional on educational inequalities.

6.1 Political participation

Looking at the mixed results on active behaviour and its potential for situated learning, the positive association between political knowledge and socio-political activities seems plausible, as these comprise, for instance, the sharing of political opinions and protest behaviours. Political socialisation through situated learning might take place in these settings through the quality of social interactions associated with these activities and the discussions that can be stimulated. Surprising is the finding that reported participation in rather formal settings does not correlate positively with political knowledge among the Australian youths in the present study. In fact, we find

lower levels of political knowledge among those who participated in community organisations or in party-political activities.

Supplementary analyses show that participation in community organisations is significantly and negatively associated with political knowledge only among men. Previous scholarship has identified differences in the particular contents in which men and women are politically knowledgeable (Stolle and Gidengil 2010). Differences in males' and females' participatory habits and aspects of how they perceive themselves in the political realm might explain why men and women know different things about politics. Future studies could examine the gendered habits of political participation and how these are associated with political information needs, anticipated rewards, and knowledge of political facts among men and women.

However, the knowledge assessed in our study led us to anticipate a strong and positive correlation with the activities captured by our measure of party-political participation. On one hand, party-related activities such as supporting or standing as a candidate might not actually require the kind of knowledge that was assessed in our study. On the other hand, such behaviour is rare (though it is notable that over 20% of our respondents engaged in these activities), and it may be due to our young sample that the expected relationship cannot be identified. Interestingly, recent studies looking at adolescents report similar results. Geboers et al. (2015) using cross-sectional data from Dutch primary and secondary students found a negative effect of participation in societal organizations (a measure that combined party-political activities and participation in community organisations) on citizenship knowledge. An international study comparing 14-year olds from 24 countries found that civic knowledge was positively associated with intended electoral participation but negatively associated with students' willingness to participate in other traditional forms of political participation (Ainley et al. 2018). These findings challenge established knowledge and suggest the potential emergence of differential mechanisms leading to political participation among young people compared to adults in their thirties and beyond.

Also, our study yields evidence that this negative association only holds among youth with average or below average levels of political interest, and that it is significant especially if combined with lower educational attainment. However, the association turns positive among less educated young adults with very strong interest in politics. These are important findings that in part support *and* challenge our theoretical model and require further research with other samples and populations. Specifically, participation in party-political activities appears to require high levels of efficacy and motivation: Socio-political activities might be more intrinsically rewarding than party-political activities that often require stronger personal investments for young people (Reichert 2016a). Standing as a candidate in an election could also be associated with the reward of public recognition, thus it is

possible that these activities are extrinsically motivated and have limited potential for actual self-determination (Deci 1992). Future studies should also investigate the quality of interactions among those who participate to understand the characteristics of participation that enhances learning outcomes, such as by means of social network analysis.

We tentatively conclude that our findings put a question mark on public policies that aim to promote both active *and* informed citizens. Without raising sufficient interest in the domain of political affairs, 'active' citizens might not be cognitively engaged, which would be problematic for sustaining democracy. Furthermore, 'active' citizenship should not be defined in terms of mere party-related participation. Young people's commitments to traditional forms of political participation are declining, but they are motivated to engage in sociopolitical forms of participation (Barrett 2017). Consequently, our study supports scholarly claims that demand a more comprehensive understanding of political participation and the (potentially gendered) reciprocal effects with political knowledge, especially among young people (Harris et al. 2010; Vromen 2003; Vromen and Collin 2010).

6.2 Prior participation at school

The informal curriculum enables students to participate in activities at school that are commonly considered when situated learning theory is applied to political socialisation (McIntosh and Youniss 2010), such as voting and contributing to newspapers. We therefore expected that respondents who report having engaged in such activities during their school days would have higher levels of political knowledge as young adults. We do not know why self-reported participation at school is negatively associated with political knowledge among highly interested young adults, though the constraints of non-democratic school administration and culture are possible reasons. This is only a small statistical effect which needs replication in longitudinal studies, yet it seems to contradict conventional wisdom and claims for student participation in schools. However, the latter claims are usually related to a participatory citizenry and not so much to politically informed citizens, both relevant for the quality of democracy. Having collected many participatory experiences in school may result in a more habitual approach towards participation as an adult, so that new knowledge about politics is either not sought or perhaps even in conflict with knowledge about school governance processes. Actively seeking such information may thus be more important among the latter group.

Notably, Geboers et al. (2015) also found a negative association between school participation and adolescents' citizenship knowledge. Future researchers should further explore the conditions under which participation at school is conducive of political knowledge. For example, it is possible that school participation only relates to civic outcomes such as political knowledge when students perceive the school environment as just

and student participation as meaningful (Reichert et al. 2018; Resh and Sabbagh 2017). Alternatively, the time spent on participation at school reduces the interest in and time available for acquiring 'textbook knowledge' about politics. Another explanation for the identified negative association among young adults in our study might be bias in respondents' recollection of school participation as it may date back several years. We do not know why and how young adults acquire their knowledge about politics (or forget) after they leave school. More research is needed to more clearly illuminate this relationship and the long-term influence of participation in school.

6.3 Excursus: News media use

Finally, let us elaborate on the gathering of political news, which is sometimes viewed as a very passive, 'latent' form of political participation (Ekman and Amnå 2012; Evans and Stoker 2016) that may continue post-school. Overall political news media use is not significantly associated with civic knowledge upon controlling for potential confounders. Supplementary analysis show that no moderated relationships appear for political news media use, but we find a positive association among highly educated males. Other research has shown that the effects of news media may differ by the type of news medium (Fraile and Iyengar 2014; Liu and Eveland 2005), and item-level analyses match recent research on secondary school students (ACARA 2017). These additional analyses suggest that more frequent newspaper reading among males is the driving force behind their positive association between political knowledge and political news media use, supporting our recommendation for gendered analyses of political socialisation.

In the gathering of news through the internet our item-level analysis finds a positive relationship, which weakens once political interest is controlled for. Following the news online is among the most self-guided ways to acquire information about politics, and it may be surprising that the association between gathering news online and political knowledge is not contingent upon political interest. Experimental studies should follow up on these findings, and future research should also tackle the processes that help facilitate political knowledge through new media and in longitudinal settings.

Somewhat in contrast to prior research is the finding that exposure to political news on television is associated with higher levels of political knowledge conditional on motivation and education. Although Fraile and Iyengar (2014) found no moderated effect for public broadcasting, our finding is in line with Liu and Eveland's (2005) hypothesis that the association between political knowledge and watching news on television is smaller among citizens with high (campaign) interest, compared to those with little interest. News on television

may inherit a relatively higher level of excitement than other media due to the entertainment aspect of television news (Liu and Eveland 2005), thus perhaps catering to less interested youth.

Our study goes beyond prior research as we account for resource inequalities, suggesting that this interaction depends on educational background. This study suggests that higher levels of knowledge are associated with more frequent exposure to political news on television only among highly educated respondents who report average or below average interest in politics. This association might reflect knowledge that is absorbed while watching entertaining news (Liu and Eveland 2005). Furthermore, this association only appears among highly educated young adults. Possibly, better educated youths are more capable of extracting relevant information and may find it easier to learn from the news even without devoting much attention to it. Thus, those who are not interested but incidentally watch news may indeed benefit from watching news if they possess respective cognitive skills.

Unfortunately, we cannot further disentangle this association for public versus commercial broadcasting. Differences between Americans, Europeans and Australians or the particular information environment might play a role (Fraile and Iyengar 2014), and differential measurement models and frequency scales might be another explanation. Researchers may find it worthwhile to disentangle the associations between political news exposure and different kinds of political knowledge in more detail and to examine how these associations depend on specific kinds of television shows. We suggest future research to further investigate these questions and to use more comprehensive and longitudinal samples, as our study's primary focus is on more active forms of political participation.

Finally, researchers may also want to look beyond social determinants of political knowledge and interest to examine the role of personality traits. For example, Mondak (2010) found higher propensities to read a newspaper or to watch television news among extraverted Americans, arguing that extraverted individuals may gather information without explicit political motivation merely to avoid being left out of conversations. Furthermore, openness to new experiences should trigger an interest in new information and it has indeed been shown to positively predict interest in politics and political knowledge, though this effect appears to be particularly powerful among respondents with low levels of conscientiousness (Gallego and Oberski 2012; Mondak 2010).

6.4 Limitations and future research

Although most effects in our study are small, these are worth examination and explained significant levels of variation in respondents' political knowledge. The findings of this research are valuable as they provide a very rich base for hypothesis building and can trigger fruitful future research. Second, this research relies on an online

sampling procedure and it could be that those who are more active on the web are overrepresented in our study. However, online sampling procedures are quite common and may have more potential of reaching young people, as seen in the AES (McAllister et al. 2016). Furthermore, youths use the internet nowadays, even though those who are reached by an online survey may differ from the rest of the population. Third, compared to large-scale assessments and surveys, our sample is rather small. Yet our sample is much larger than the group of young adults sampled in the AES that has been analysed elsewhere (McAllister 2016), and the mechanisms we have identified should not be affected by that as significant numbers of respondents reported participation. These points help account for the constraints to our study, which we tried to overcome by using a practical and cost-effective design. Also, our sample compared very well against the subsample of young adults in the AES.

Our study is of correlational nature as we use cross-sectional data, and the use of longitudinal data is needed to clarify the causal relationships. While many previous studies examined political knowledge as a predictor of intended political participation or of participation prior to the data collection, panel studies have shown that participation is a stronger predictor of political attitudes than *vice versa* (Quintelier and Hooghe 2012; Quintelier and van Deth 2014). Although cross-sectional data require us to be modest about our conclusions it is worth noting that political knowledge, the dependent variable in our study, was measured at the end of the survey after all predictors had been measured, so there was a reasonable sequence in the questionnaire. In addition, it would not be plausible to argue that knowledge during the survey affects participation at a previous time, so the proposed sequence (participation prior to the study as a predictor of knowledge during the study) is also reasonable. One limitation of survey studies such as ours is the reliance on self-reported measures though, and future research needs to be longitudinal and observe engagement in participatory practices (especially regarding participation at school).

We further reiterate that the nature of knowledge we assessed was primarily conceptual knowledge about the political system and not about current political events and policies. Given the moderate explanatory power of our models, it may well be that formal education in schools is the most important factor in the acquisition of political knowledge of that kind (Jennings 1996), whereas policy-related knowledge or knowledge about politicians and their public roles might be easier to acquire by media exposure. Although it is difficult to reliably assess different knowledge measures in a survey study, future research might find it worthwhile to look at different aspects of political knowledge. Factors such as engagement in political discussions might also be relevant moderators or mediators (Reichert and Print 2017).

6.5 Conclusion

This study represents a step towards a better understanding of how participatory practices are associated with political knowledge among young Australians. Our analysis connects the concepts of situated learning, self-determination and motivation contingency to explain political socialisation among young people. The reported results build a rich source for hypothesis building and future research. We are modest about our findings, which suggest that different participatory practices vary in their associations with political knowledge, an important prerequisite to adequately understand the political system and to interpret current political events — which resembles a key facet of the overall quality of democracy. Situated learning through participation in politics might not be a simple process of learning by doing and through exposure to gain knowledge, but the type of activity and potentially of political knowledge require consideration.

Furthermore, researchers should be sensitive to account for motivational differences and educational resources, which might affect how (ir)relevant different practices are among strongly and less interested people. This study suggests that among young people time and motivated learning could be important factors in determining political knowledge. While news media have often been associated with gains in political knowledge, active participation in school and community as well as civic and political activities in the past seem to play differential roles. The transmission of political knowledge in the formal setting of schools might be of particular significance as it can build a knowledge foundation to prevent the emergence of disparities in political knowledge.

Notes

- 1. This element would exclude voting in elections in the Australian context where voting is mandatory.
- 2. It is noteworthy that only a total of 91 young adults born between 1992 and 1997 were surveyed over a period of four months in the AES 2016 (one of those respondents was not enrolled to vote; McAllister et al. 2016).
- 3. Similarly, 60 out of the 91 responses from young adults between 19 and 24 years of age in the AES 2016 were collected online, whereas 59.3% of the responses from older Australians were collected by means of a hard copy (McAllister et al. 2016).

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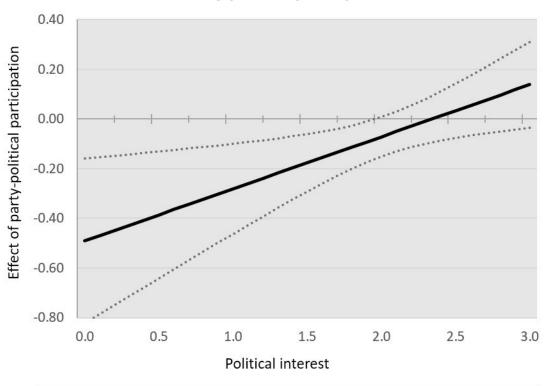
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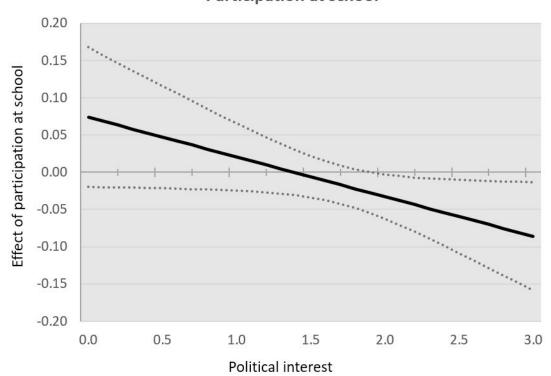
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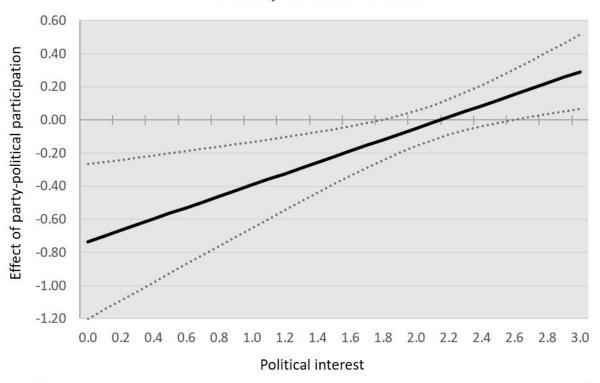
Party-political participation



Participation at school



Secondary education or below



Tertiary education

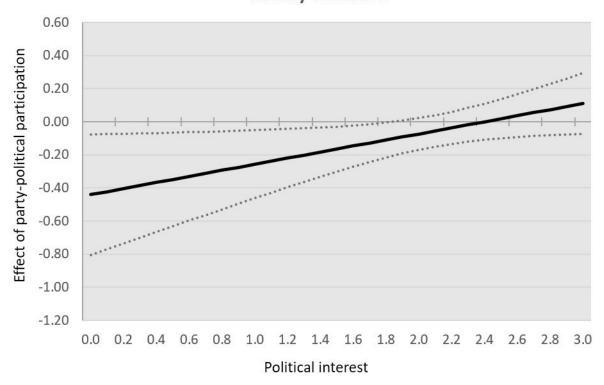


Fig. 1	The effects of party-political participation (above, vertical axis) and of participation at school
	(below, vertical axis) conditional on political interest (horizontal axis).

Fig. 2 The effect of party-political participation (vertical axis) conditional on political interest (horizontal axis) and educational attainment (above: max. secondary degree; below: tertiary degree).

 Table 1
 Descriptive statistics of the predictor variables and their correlations with political knowledge

-	N	Mean	SD	Correlation with knowledge
Age	452	22.03	1.60	0.06
Gender (male/female)	452	0.51	0.50	0.07
Immigration background (no/yes)	452	0.43	0.50	0.07
Education (max secondary/tertiary)	451	0.53	0.50	0.00
Political interest	452	1.67	(0.61)	0.17**
News media use	447	2.03	(0.96)	0.09^{\dagger}
Participation at school	449	1.19	(0.90)	-0.05
Party-political participation	452	0.22	(0.41)	-0.05
Socio-political participation	452	0.26	(0.27)	0.09^{\dagger}
Part. in community organisations	452	0.24	(0.31)	-0.02

 $[\]overline{}^{\dagger}p < .10, *p < .05, **p < .01, ***p < .001$

 Table 2
 Political knowledge as a function of participatory practices

	Model I: Participation		Model II: Pol	itical interest
	В	SE	В	SE
Age	0.01	(0.01)	0.01	(0.01)
Gender (male/female)	0.02	(0.03)	0.03	(0.03)
Immigration background (no/yes)	0.04	(0.03)	0.03	(0.03)
Education (max. secondary/tertiary)	-0.02	(0.03)	-0.03	(0.03)
News media use	0.02	(0.02)	0.00	(0.02)
Political interest			0.09**	(0.03)
Participation at school	-0.01	(0.01)	-0.03 [†]	(0.01)
Party-political participation	-0.08^{\dagger}	(0.05)	-0.08^{\dagger}	(0.04)
Socio-political participation	0.21**	(0.08)	0.15^{\dagger}	(0.09)
Part. in community organisations	-0.08	(0.06)	-0.09	(0.06)
Intercept	0.38^{*}	(0.21)	0.28	(0.22)
R^2	0.05^{*}	(0.02)	0.08**	(0.03)

 $[\]overline{}^{\dagger}p < .10, *p < .05, **p < .01, ***p < .001$ (two-tailed for all predictors; one-tailed for intercept and R^2)

 Table 3
 Interactions between motivation and participatory practices

	Model III: Interactions		
	В	SE	
Age	0.01	(0.01)	
Gender (male/female)	0.03	(0.03)	
Immigration background (no/yes)	0.03	(0.03)	
Education (max. secondary/tertiary)	-0.02	(0.03)	
News media use	-0.00	(0.01)	
Political interest	0.12***	(0.03)	
Participation at school	0.07	(0.05)	
Party-political participation	-0.49**	(0.17)	
Socio-political participation	0.32	(0.31)	
Part. in community organisations	-0.24	(0.21)	
Political interest X part. at school	-0.05*	(0.03)	
Political interest X party-political part.	0.21*	(0.08)	
Political interest X socio-political part.	-0.10	(0.14)	
Political interest X community part.	0.08	(0.10)	
Intercept	0.21	(0.21)	
R^2	0.11***	(0.03)	

 $[\]frac{1}{p} < .10, *p < .05, **p < .01, ***p < .001 (two-tailed for all predictors; one-tailed for intercept and <math>R^2$)

 Table 4
 The role of motivational inequality conditional on education (constrained models)

	Model IV: Simple education model		Model V: Interaction effects mod	
-	В	SE	В	SE
Age	0.01	(0.01)	0.01	(0.01)
Gender (male/female)	-0.03 0.08*	$(0.04 \mid 0.04)^a$	-0.03 0.08*	$(0.04 \mid 0.04)^a$
Immigration background (no/yes)	0.03	(0.03)	0.03	(0.03)
News media use	0.00	(0.02)	0.00	(0.01)
Political interest	0.09**	(0.03)	0.11**	(0.03)
Participation at school	-0.02^{\dagger}	(0.01)	0.08	(0.05)
Party-political participation	-0.08^{\dagger}	(0.04)	-0.73** -0.44*	(0.24 0.19) ^a
Socio-political participation	0.16^{\dagger}	(0.08)	0.38	(0.30)
Participation in community organisations	-0.10^{\dagger}	(0.06)	-0.29	(0.20)
Political interest X part. at school			-0.05*	(0.03)
Political interest X party-political part.			0.34** 0.18*	(0.11 0.09) ^a
Political interest X socio-political part.			-0.12	(0.14)
Political interest X community part.			0.10	(0.10)
Intercept	0.32 0.24	$(0.23 \mid 0.23)^a$	$0.27^{\dagger}\mid 0.19$	$(0.21 \mid 0.21)^a$
R^2	0.07** 0.11**	$(0.03 \mid 0.04)^a$	0.11*** 0.13**	(0.04 0.05) ^a

^a Effect conditional on education (p < .05). Coefficients on the left of the vertical line are for respondents with max. secondary education; coefficients on the right are for respondents with a tertiary degree.

 $^{^{\}dagger}p$ < .10, $^{*}p$ < .05, $^{**}p$ < .01, $^{***}p$ < .001 (two-tailed for all predictors; one-tailed for intercept and R^{2})