Informal Logic

Youth Voting, Rational Competency, and Epistemic Injustice
Vote des Jeunes, Compétence Rationnelle et Injustice Épistémique

Michael D. Baumtrog

Volume 41, numéro 1, 2021

Argumentation and Social Justice
Argumentation et Justice Sociale

URI : https://id.erudit.org/iderudit/1076223ar
DOI : https://doi.org/10.22329/il.v41i1.6691

Aller au sommaire du numéro

Éditeur(s)

Informal Logic

ISSN

0824-2577 (imprimé)
2293-734X (numérique)

Découvrir la revue

Citer cet article

Baumtrog, M. (2021). Youth Voting, Rational Competency, and Epistemic Injustice. *Informal Logic*, *41*(1), 41–55. https://doi.org/10.22329/il.v41i1.6691

Résumé de l'article

En 1970, l'âge de voter au Canada est passé de 21 à 18 ans. Depuis lors, des appels ont été lancés pour l'abaisser davantage, le plus souvent à 16 ans. Toutefois, on a soutenu contre cet appel que les jeunes n'ont peut-être pas l'habileté d'exercer un vote mûr et éclairé. Cet article dénonce cette inquiétude et montre à quel point empêcher les jeunes de voter sur la base d'une croyance erronée quant à leurs habiletés équivaut à une injustice épistémique.

Youth Voting, Rational Competency, and Epistemic Injustice

MICHAEL D. BAUMTROG

Ted Rogers School of Management
Ryerson University
350 Victoria Street
Toronto, ON M5B 2K3
baumtrog@ryerson.ca

Abstract: In 1970 the voting age in Canada changed from 21 to 18. Since then, there have been calls to lower it further, most commonly to age 16. Against the motion, however, it has been argued that youth may lack the ability to exercise a mature and informed vote. This paper argues against that worry and shows how restricting youth from voting on the basis of a misbelief about their abilities amounts to an epistemic injustice.

Résumé: En 1970, l'âge de voter au Canada est passé de 21 à 18 ans. Depuis lors, des appels ont été lancés pour l'abaisser davantage, le plus souvent à 16 ans. Toutefois, on a soutenu contre cet appel que les jeunes n'ont peut-être pas l'habileté d'exercer un vote mûr et éclairé. Cet article dénonce cette inquiétude et montre à quel point empêcher les jeunes de voter sur la base d'une croyance erronée quant à leurs habiletés équivaut à une injustice épistémique.

Keywords: decision making, democratic participation, epistemic injustice, informed vote, youth

1. Introduction

Youth have plenty of interest in political participation. Today, perhaps most prominently, we see global youth action aimed at fighting the climate crisis. In 2018 and 2019, young advocates such as Autumn Peltier and Greta Thunberg, captured global attention for their clarity, determination, courage, and remarkable poise while advocating for climate action in the presence of some of the world's most powerful people. In addition to environmental causes, as Malala Yousafzai has shown, youth are increasingly

vocal advocates of equal gender policies and protecting and promoting educational access and quality.

Unfortunately, however, in many countries youth are prohibited from one of the most basic forms of political recognition—voting. In Canada, the legal age for voting is 18. This means that at least 7,176,144 people (19.35% of the population) are prohibited from voting (www.statscan.ca). Despite this restriction on nearly 1/5 of their population, Canada prides itself on providing "universal" suffrage. And Canada is not alone. The voting age in England and the United States is also 18—the most common age globally—and in some places it is notably higher, such as in Singapore and Lebanon where it is 21.

There are several reasons why any given group of individuals may be restricted from voting, some more nefarious than others. In terms of youth, John Wall (2014) divides a variety of these reasons into two general streams. The first stream claims that youth lack the capacity, either in terms of the having the competence to make rational judgements, having knowledge of political systems, or possessing independence from outside influence. The second claims that allowing youth to vote could result in a harm to others, whether it be adults specifically, other children specifically, or culture generally.

In this paper, I am only concerned with the claim regarding rational competency. In political forums (for example, the debate on Canadian Bill C-261)[1] and the popular media alike (e.g., Lum 2018; Burnett 2017), this opposition is usually described as the inability for youth to exercise a mature or informed vote. While I have not found an agreed upon understanding of what constitutes a 'mature and informed' vote, I take it to be a vote decided predominantly as the result of reasoning and argumentation. If this is correct, then I find the claim that youth are unable to do so unconvincing and believe that the motivation for restricting youth from voting results, in large part, from the epistemic discounting they receive due to their youth. If this is correct, excluding (at least many) young people from suffrage may be not only a social but also an epistemic injustice. The overarching idea explored in this

[1] https://openparliament.ca/bills/38-1/C-261

paper, then, is that the ability to reason, a precondition for (or partner to) the ability to argue, is equally present in younger people more often than is commonly thought. This allows young people to have real argumentative discussions with their peers and voters of all ages, as well as engage in internal deliberation regarding differing political positions and proposals—all of which are important for deciding who to vote for. Having equal or comparable argumentative ability but being restricted from voting based on the false claim that these abilities differ, is then a grave social injustice in societies valuing suffrage and aiming to extend it as far as possible.

To develop this argument, the paper proceeds as follows: in the next section, I will offer a brief review of some of the theoretical and experimental literature focused on youth's ability to reason and argue, specifically at the age of 16, which is the most common alternate age proposed for the granting of suffrage. The third section demonstrates young peoples' political competency by showing how their abilities are already often employed in several real-world political activities. In the fourth section, I link the generalization that youth are incompetent voters to the notion of a systematic identity prejudice, which is the central condition in Fricker's (2007) conception of epistemic injustice. I then show how this prejudice unjustly discredits youth as both theoretical and practical reasoners. In the conclusion, I tie together the argument against the claim that 16-year-olds cannot come to a mature and informed decision and argue that granting 16-year-olds the right to vote could have a broader effect in alleviating the epistemic injustice they face.

2. What do the studies say?

It is important to first identify the target, in other words, what counts as rational "competency." To do so, I will distinguish competency from excellency. For present purposes, I take it that articulating decision-making excellency would require a determination of *how well* someone can make an informed decision, whereas determining competency involves the less complicated task of determining if someone can reason *well enough* to make an in-

formed decision, i.e., whether they meet a certain standard or threshold. It seems fitting, then, to make that standard the rough equivalent of the competency of the majority of the rest of the voting population.[2] In this spirit, Wall has identified competency as, "the capacity for political reason as expressed in such abilities as public critical thinking, discourse with others, and the ability to weigh society-wide outcomes of decisions" (2014, p. 110). I appreciate this characterization for its flexibility and applicability and thus take it up as the target for the remainder of the discussion.

So, what does the literature say about the ability for people 16 years of age (and under) to meet our target? In an excellent doctoral dissertation, Schär (2019) has pointed out that the literature on youth reasoning and argumentation tends to fall into two broad streams. The first stream is product-focused and looks at the ability of youth to reason individually. In other words, competency is assessed by looking at the argumentative products—essays, scores on tests, etc.—that youth produce. This approach is developed most prominently by Kuhn (1991). The second stream is process-focused, and more often looks at the role of reasoning and decision-making in social or group contexts. In other words, young people are monitored as they interreact in differing social situations, and researchers make note of where argumentation emerges (or does not emerge) within their discussions. Both streams, however, are clear that 16-year-olds maintain at least equal competency to their older counterparts.

For example, Kuhn argues that age matters until around the age of 14 (ninth grade), and then education takes over as the most important determinant of reasoning ability. She states,

> After ninth grade, educational level (college vs. non college) takes over as the factor predictive of [argumentative] performance, as found here. Young adults with at least several years of college

[2] One could argue that we need only measure against the competency of the lowest common denominator in the voting citizenry. I specify, "majority of the rest of the voting population", however, so as not to measure the general population of 16-year-olds against the sub-set of people over the age of 18 with cognitive disorders and illnesses, all of whom were granted the right to vote in Canada in 1988.

> performed significantly better than ninth-graders, while *the performance of non college young adults was intermediate between that of sixth- and ninth-graders*. (Emphasis added. Kuhn 1991, p. 285)

This means that if competency ought to be a measure of eligibility for voting, many non-college adults ought to be prohibited as well, since they demonstrate performance equivalent to children aged from approximately 11 to 14 years (sixth to ninth grade).

The shift that Kuhn identifies as occurring around the age of 14 involves metacognitive tasks. She argues that prior to ninth grade, youth can still apply theories to evidence but are not so able, or may be unable, to conduct the metacognitive tasks of "specifying forms of evidence that would show a theory to be correct or incorrect and to evaluate the bearing of forms of evidence presented by the interviewer on different causal and noncausal theories" (p. 284).

At the European Conference on Argumentation in 2019, Kuhn also noted that educational intervention with students aged 11 to 13 enabled them to competently discuss and decide on questions such as "Should people be required to pay a social security tax from each paycheck that will provide money when they retire, or should people save on their own for their retirement?" and "Should a powerful nation intervene to help another nation in trouble or only focus on its own problems?" (2019a; see also Kuhn 2019b, pp. 155ff). These questions are obviously political, and the transcripts Kuhn provided clearly show how the children met all of Wall's criteria to demonstrate political competency.

The process-oriented study of youth reasoning and argumentation is currently being developed in Switzerland by scholars such as Greco, Mehmeti, and Perret-Clermont (2017), who found that students aged 8–13 discussing environmental issues were largely able to meet the demands of the ideal model of a critical discussion proposed by van Eemeren and Grootendorst (1984; 2004). As opposed to asking students to complete a test or write an essay individually, in this study, children were encouraged to interact and discuss issues while a teacher facilitated. The study shows that these students were able to "open new issues for a discussion; they advanced standpoints and arguments in support of their stand-

points. Moreover, they were able to follow the teacher when she shifted the issue and opened new paths for their discussion" (Greco, Mehmeti, and Perret-Clermont 2017, p. 213).

As another proponent of the process approach, Mercier (2011) has argued that reasoning is innate and that it evolved to improve argumentation. As evidence for the innateness of reasoning, he points to studies demonstrating that by age three, children have "recourse in argumentation to social rules, to the material consequences of action or the consequences for others' feelings" (p. 182). He further highlights that children, like adults, reason and argue better when motivated to do so—e.g., when facing or anticipating disagreement. This motivation is, as with adults, closely linked to the confirmation bias:

> In another study it was found that the large majority of 9-year-olds' utterances supported their own point of view (Pontecorvo & Girardet, 1993). It is important to stress that this early emerging confirmation bias does not entail a lack of ability to attack arguments—when they are the arguments of the other party in the conflict (Howe, Rinaldi, and Jennings 2002; Tesla and Dunn 1992) (Mercier 2011, p 186).

Like Mercier (2011), in her more recent and more process-based work, Kuhn highlights differences between individual and social argumentation. While in written essays, most evidence produced by children is in support of their own position, "an average of one third of evidence-based claims served the function of weakening the opposing position (versus under 10% in the essays of these same participants)" (2019b, p. 154). In her view, children best 1) support their own standpoints, 2) find weakness in others', 3) find strength in others', and 4) see weakness in their own. She also noted that youth, like adults, reason and argue far better when they have more access to more information.

Thus, all the studies looked at so far recognize the ability for young children, well below the age of 16, to generate and support their standpoints and find weaknesses in others'. These results align well with the same strengths and biases found in adult reasoning (Kahneman 2011). Thus, from the two main streams of research into youth reasoning and argumentation, there does not

appear to be any significant difference between how a 16-year-old and an average person within the legal voting age range would form an opinion and handle opposition.

3. Youth political activities

Given that the literature points to the ability for youth to reason and come to an informed decision, it is unsurprising that they also exercise these abilities in a number of forums where they demonstrate their ability to meet the aforementioned "capacity for political reason as expressed in such abilities as public critical thinking, discourse with others, and the ability to weigh society-wide outcomes of decisions."

Take, for example, the recent global marches for climate. Before, during, and after these events, youth are engaging in discourse with others, especially about the society-wide outcomes of decisions. Before marches, young people are discussing current and potential policy changes and costs. They do so at home, at school, and often on social media. The marches themselves seem likely to be a manifestation of at least two general conclusions drawn during these previous discussions, namely, that something must be done to solve the climate crisis and that so far there is insufficient action, so the urgency of the need to act must be expressed through protest.

These movements have been some time in the making but have consistently been led by young people. For example, Autumn Peltier, from Wiikwemkoong First Nation on Manitoulin Island in Northern Ontario made headlines in 2016 when she confronted Prime Minister Justin Trudeau about his broken environmental promises. She has also now spoken to the General Assembly of the United Nations in both 2018 and 2019 (Manitoulin teen, 2019). In the United States, 11-year-old Amariyanna (Mari) Copeny, gained international attention in 2016 when she received a response from American President Barack Obama regarding the water crisis in her hometown of Flint, Michigan (Wikipedia). She has been fighting for clean water since, recently running a successful GoFundMe campaign to provide water filters to the community.

More popularly, 16-year-old Greta Thunberg's School Strike for Climate, which evolved into a mass movement taking place around the world, has put youth political reasoning competencies on full display, with more and more youth voices hitting the airwaves on major networks as recognised knowers on expanding social and political topics.

When not striking, many secondary school students are exercising their political competency through school-based activities, such as mock voting preparation and execution (www.studentvote.ca), which are aligned with real elections. In these events, like adults, students learn about each candidate and the implications of their platforms. They compare and contrast candidate's platforms and eventually cast a mock ballot. But their participation is not limited to the municipal, provincial, or even national level. On the international scale, students also participate in political forums, such as the model U.N. and NATO summits, wherein they roleplay representatives from participating countries and make decisions based on complicated country profiles. It should be noted that all of the school-based activities mentioned thus far are also happening, at least in Canada, in addition to every student's participation in their mandatory civics class.

Finally, outside of school, youth often sign or refuse to sign petitions after discussing them with advocates on the street, they engage in debate about political issues with their families at home, and some even join the youth wings of adult-run political parties and organizations, most of which, in Canada, welcome all participants 25 years of age and under despite the legally recognized 18-year-old voting age.

Thus, in both theory and action, we can see how youth demonstrate "the capacity for political reason as expressed in such abilities as public critical thinking, discourse with others, and the ability to weigh society-wide outcomes of decisions." If this is true, it points to at least three significant insights.

First, if an age has to be selected for cognitive development, it seems 15 would make more sense given, as Kuhn shows, 14 is the age at which the last major relevant cognitive development occurs. Second, education is much more important than age for making an informed decision. Since this is also the case for adults, we should

not be surprised that it also holds for the young, and if it is wrong to prohibit an uneducated 40-year-old from voting, there is strong reason to believe it is also wrong to prohibit 16-year-olds, educated or not, from voting. Third, like adults, youth demonstrate better reasoning and decision-making abilities when they are motivated to do so (have a stake in the game, so to speak) and have the chance to investigate and learn about a topic. When others disagree with them, which is very common in the political domain, youth regularly demonstrate their abilities to meet Wall's conditions for political competency. This suggests that engaging, motivating, and informing young people would suffice to ensure they meet the standard of competency of their adult voting counterparts.

Overall, the evidence suggests that rather than restricting the young from voting, we should be encouraging better education for all. Further, since educating the electorate is a common goal among all liberal democracies, including the young should not require a foundational ideological shift—it would simply require recognizing 16-year-olds as a valuable voting demographic with their own unique interests and abilities, much like all of the existing demographics already considered.

The problem, however, as I will argue in the next section, is that youth are not generally recognized as knowers and competent decision-makers. Rather, they suffer from a systematic identity prejudice, which often causes their epistemic credibility to be unjustly discounted and leads to their exclusion from activities such as voting.

4. Epistemic and argumentative injustice

The term 'epistemic injustice' identifies instances where a person is wrongfully discredited as a knower and transmitter of knowledge due to a systematic identity prejudice (Fricker 2007). For Fricker, an identity prejudice is systematic when it "tracks" a subject "through different dimensions of social activity—economic, educational, professional, sexual, legal, political, religious, and so on" (pp. 27-28). Much of the literature on epistemic injustice focuses on the systematic identity prejudices attached to

gender and race, pointing out how women may not be believed or attributed the appropriate epistemic credibility because they are women or Black, Indigenous, People of Colour (BIPOC) being wrongfully discredited because of their race or the colour of their skin. Bondy (2010) extends this idea to argumentation and outlines what he sees as argumentative injustice. For him, "argumentative injustice is much like testimonial injustice, except that it occurs in the context of arguments, rather than testimony, and it can occur when an arguer is given too much credibility, as well as when she is given too little" (Bondy 2010, p. 267).

It is important to further note that social identities do not function in isolation. Collins points out that identities such as "race, class, gender, sexuality, ethnicity, nation, ability and age operate not as unitary, mutually exclusive entities, but rather as reciprocally constructing phenomena that in turn shape complex social inequalities' (Collins 2017, p. 115). In other words, our identities are intersectional. A BIPOC is also a certain age, comes from or has a certain amount of wealth, has certain abilities or disabilities, etc. This means that in some cases, an individual's intersectional identity may amplify or lessen the prejudicial discreditation against them while in others, it may render them epistemically invisible altogether (Purdie-Vaughns and Eibach 2008). Youth has only been isolated in this article for conceptual clarity. It is hoped that doing so will help shed light on some unique considerations that being young brings to the table, but it is not to pretend it is the only factor leading youth to be unjustly discredited.

So how does youth relate to perceptions of epistemic credibility and lead to epistemic injustice? Recent work (e.g., Baumtrog and Peach 2019; Baumtrog 2017; Burroughs and Tollefsen 2016; Carel and Györffy 2014; Murris 2013) has identified a number of ways youth may function like race or gender, causing some to discredit young people as knowers and transmitters of knowledge based on a wrongful prejudice tying youth to ignorance. In many of the cases analyzed thus far, it is children's testimony that is not believed, leading to what Fricker identifies as a testimonial injustice. For example, in some of the more severe cases, they may not be believed when describing their own health problems or their experiences of physical abuse. In more everyday interactions, they may

not be believed about an objective factual matter, such as the development of a political event or another news item. And there are a myriad of ways the young may be discredited in the classroom, which may lead to their exclusion from certain classes or institutions and may unnecessarily restrict the teacher in their selection of learning materials and approaches (cf. Kotzee 2017).

While the very young especially differ epistemically from their adult counterparts, systemic prejudice against youth often 1) mischaracterizes the extent of this difference (working under the assumption that the gap between the young and old is bigger than it is, as has been shown above), 2) assumes an overly close similarity in the knowledge levels of adults (i.e., disregards the significant difference in knowledge levels between adults), and 3) disproportionally punishes or restricts the young for their ignorance while also disproportionally withholding the appropriate credit or praise for their intelligence. As Bondy points out, among other harms, "[g]ranting too little credibility to an argument harms those involved in the argumentative exchange, qua arguers" in that "it can distort an arguer's status in the community of arguers, if the prejudice is such that people take him to be unable to argue well" (Bondy 2010, p. 266). In this way, the systematic prejudice against youth that views them as rationally incompetent for voting amounts to a practical epistemic injustice (a systematic denial of youth as competent electoral decision-makers) that then leads to the social injustice of muting their votes from the electoral process.[3]

I believe youth prejudice and the resulting consequences happen in large part due to what I call what I call the maintenance of the default world of adult social and communicative understanding. Operating within this default means, *inter alia*, succumbing to adultcentrism: "the tendency of adults to view children and their

[3] I would like to thank a reviewer for pointing out that this experience may also lead to a what Fricker calls a hermeneutical injustice, in that it may cause young people to discount their own political agency while not being able to articulate this loss of agency or describe their thoughts and feelings around voting and participating. The consequences of this loss could then also have many long-term effects both internally, for example on confidence in speaking up on political issues, and externally, for example on voter apathy.

problems from a biased, adult perspective" (Goode 1986 quoted in Petr 1992). As Petr points out,

> This bias does not typically stem from some blatant, pernicious, or even conscious intent. Adultcentrism is subtle and, although the analogy is not perfect, it can be understood as being similar to ethnocentrism, which Sumner (1906) originally defined as "a view of things in which one's own group is the center of everything, and all others are scaled and rated to it." With respect to children and adults, adult centric bias is evident when we measure children by adult standards, when we fail to suspend our assumptions about them, when we decline to see the world from their point of view. (Petr 1992, pp. 408–409)

As the majority of the population, adults are rather comfortable operating with the interpretive resources they use on a daily basis and make little to no effort to systematically adapt them for their younger counterparts. There are, of course, exceptions to the rule, such as a good lawyer who connects with a youth in a trial or a teacher who learns the most recent jargon of her students so as to 'meet them where they are' and improve intergenerational communication. But these efforts are exceptions, leaving the structural and cultural force of the marginalization largely intact. If this is correct, the injustice children face is not that they may lack knowledge in certain domains, as all adults also do, but that they live in a world where epistemic and communicative resources are constructed and (re-)enforced by adults by default. In other words, they live in an epistemic tyranny of the majority.

Leaving this default world unchallenged presents a paradox for young people who understandably seek inclusion into the system that rules them. During the period that they are restricted from voting, the most obvious way for them to be included would be to vote for such a change. Because of the comfort of the adultcentrism permeating our social and political world, however, a serious challenge by the ruling adults in support of a lower (or eliminated) voting age seems unlikely to reach the critical mass needed for real change. If adults are as superiorly rational as is often claimed, however, the above evidence and arguments that young people are often equally capable of theoretical reasoning and political delib-

eration should go some way to defeating at least this one reason for excluding youth from suffrage.[4]

The implications of overcoming this reason would, I believe, also then have *pro tanto* effects on the weight of the other reasons Wall identifies in terms of competency and harm and will eventually lead to increased democratic inclusion for a wide range of reasons. For example, expanding suffrage while increasing civic education for all would help diminish concerns regarding voters' knowledge of political systems and would lessen the chance that voting decisions result in harm to the voter themselves, to others, or to culture generally. When concerns regarding competency are generally overcome, an argument for expanding suffrage to the young could focus on justice and equality more thoroughly and, hopefully, effectively.

Acknowledgements

I would like to thank Michelle Baumtrog, CW, and SW for numerous conversations on the topic. I would also like to thank the employee at the Ontario Science Centre who provided five-year-old me with the opportunity to vote for saving either the trees, air, water, or land. At that young age, and after a patient hour of painful deliberation, I had finally learned how difficult and important voting is. Many thanks are also due to the peer reviewers and editor of the article who have contributed to marked improvements in both thought and expression.

References

Baumtrog, Michael D. 2018. Navigating a necessary inequality: Children and knowledge - based injustice. *Alternate Routes: A Journal of Critical Social Research* 29: 294–306.

Baumtrog, M. D. and H. Peach. 2019. They can't be believed: Children, intersectionality, and epistemic injustice. *Journal of Global Ethics* 15(3): 213–232.

[4] At the least, it would be helpful to take up Bondy's advice (2010, pp 271-ff.) and hold a position of meta-distrust toward the initial inclination to view young people as inferior arguers (and decision-makers).

Bondy, P. Argumentative Injustice. 2010. *Informal Logic* 30(3): 263–278.

Burnett, D. 2017. Too young to vote? The science of maturity. *The Guardian*, accessed September 27, 2020, <https://www.theguardian.com/science/brain-flapping/2017/jun/13/too-young-to-vote-the-science-of-maturity>.

Burroughs, M. D. and Deborah Tollefsen. 2016. Learning to listen: Epistemic injustice and the child. *Episteme* 13(3): 359–77. https://doi.org/10.1017/epi.2015.64.

Carel, Havi and Gita Györffy. 2014. Seen but not heard: Children and epistemic injustice. *The Lancet* 384(9950): 1256–57.

Collins, P. H. 2017. Intersectionality and epistemic injustice. In *The Routledge handbook of epistemic injustice*, eds. Ian James Kidd, José Medina, and Gaile Pohlhaus Jr., 115–24. New York: Routledge.

Eemeren, F. H. van and R. Grootendorst. 1984. *Speech acts in argumentative discussions*. Dordrecht/Cinnaminson: Foris.

Eemeren, F. H. van and R. Grootendorst. 2004. *A systematic theory of argumentation: The pragma-dialectical approach*. Cambridge: Cambridge University Press.

Howe, N., Rinaldi, C., and M. Jennings. 2002. No! The lambs can stay out because they got cosies: Constructive and destructive sibling conflict, pretend play, and social understanding. *Child Development* (73): 1460–1473.

Goode, D. 1986. Kids, cultures, and innocents. *Human Studies* 9: 85–106.

Greco, S. T. Mehmeti and A-N. Perret-Clermont. 2017. Do adult-children dialogical interactions leave space for a full development of argumentation?: A case study. *Journal of Argumentation in Context* 6(2): 193–219.

Kahneman, D. 2011. *Thinking, fast and slow.* London: Macmillan.

Kotzee, B. 2017. Education and epistemic injustice. In, *The Routledge handbook of epistemic injustice*, eds. Ian James Kidd, José Medina, and Gaile Pohlhaus Jr., 324–355. New York: Routledge.

Kuhn. D. 1991. *Skills of argument*. New York: Cambridge University Press.

Kuhn, D. 2019a, July 24. *Critical thinking as discourse* [Conference presentation]. 3rd European Conference on Argumentation, Groningen Netherlands.

Kuhn, D. 2019b. Critical thinking as discourse. *Human Development* 62(3): 146–164. <https://doi.org/10.1159/000500171>.

Lum, Z. 2018. Arguments against lowering Canada's voting age to 16 are from 1970: Expert. *Huffington Post*, accessed May 18, 2019,

<https://www.huffingtonpost.ca/2018/03/19/arguments-against-lowering-canadas-voting-age-to-16-are-from-1970-expert_a_23389984/>.

Manitoulin teen to address UN again on need for clean water. *Gananoque Reporter,* accessed September 27, 2020, <https://www.gananoquereporter.com/>.

Mercier, H. 2011. Reasoning serves argumentation in children. *Cognitive Development* 26: 177–191.

Murris, K. 2013. The epistemic challenge of hearing child's voice. *Studies in Philosophy and Education* 32(3): 245–259. <https://doi.org/10.1007/s11217-012-9349-9>.

Petr, C. G. 1992. Adultcentrism in practice with children. *Families in Society: The Journal of Contemporary Social Services* 73(7): 408–416. <https://doi.org/10.1177/104438949207300703>.

Pontecorvo, C., and H. Girardet. 1993. Arguing and reasoning in understanding historical topics. *Cognition and Instruction* 11(3): 365–395.

Purdie-Vaughns, V., and R. P. Eibach. 2008. Intersectional invisibility: The distinctive advantages and disadvantages of multiple subordinate-group identities. *Sex Roles* 59(5-6): 377–391. <https://doi.org/10.1007/s11199-008-9424-4>.

Schär, R. G. 2018. An argumentative analysis of the emergence of issues in adult-children discussions. USI Lugano: Dissertation.

Tesla, C., and J. Dunn. 1992. Getting along or getting your own way: The development of young children's use of argument in conflicts with mother and sibling. *Social Development* 1(2): 107–121.

Turcotte, M. 2015. Political participation and civic engagement of youth. Ottawa: Minister of Industry.

Wall, J. 2014. Why children and youth should have the right to vote: An argument for proxy-claim suffrage. *Children, Youth and Environments* 24(1): 108–123.

Wikipedia contributors. (2019, August 22). Amariyanna copeny. In, *Wikipedia, The Free Encyclopedia*. URL accessed 23:41, 28 September 2019: <https://en.wikipedia.org/w/index.php?title=Amariyanna_Copeny&oldid=912039800>.