Quality education for all in an ideas-informed society: exploring idea-engagement amongst friendship networks and how education can prevent idea "echo-chambers"

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Abstract

Purpose – The purpose of this study is to begine to address this question. The concept of the ideas-informed society (IIS) represents a desired situation in which citizens actively and critically engage with new ideas, developments and claims to truth. Its successful actualisation is dependent on high-quality educational opportunity at all stages of the life course. Social networks represent our connections to one another. Features of our social networks impact on how we engage with ideas. For instance, homophily dictates that individuals form networks with others seen as being like themselves. A key question, however, is whether there are forms of homophily that, by the nature of those they bring together, promote ideas engagement by individuals and the implications of consequent networks for the IIS?

Design/methodology/approach – This study re-analysed survey data from 1,000 voting-age citizens in England. Focusing on friendship networks, the authors used a structural equation model approach to explore the existence and potency of homophilic friendship networks; whether such networks drive respondents' ideas-engagement with friends; and whether ideas discussions with friends impacts on the importance respondents place on staying up to date.

Findings – Political homophily has the strongest influence on whether people discuss new ideas with their friends (ES = 0.326, $p < 0.01$). In turn, ideas discussion has a significant impact on the extent to which people value engaging with ideas (ES = −0.345, $p < 0.01$).

Originality/value – The authors consider whether ideas-related discussion within politically homophilous networks is problematic for the IIS and what is required from education systems if we are to build individuals' capacity to engage with ideas while escaping echo chambers.

Keywords Ideas-informed society, Homophily, Social networks, Friendship networks, Ideas networks

Paper type Research paper

Introduction

In late January 2023, *The Times* newspaper, published an article entitled "Hope Sussex school trains next generation of conspiracy theorists" (Ball, 2023). Hope Sussex school, reported *The Times*, had been established, illegally, by a group of anti-vaxxers (a name used to identify those opposed to the roll-out of the COVID-19 vaccination programme during the 2020–22 period). This collective, which included former members of the far-right *British National Party* and with the support of *Alpha Team Assemble*, a militant anti-vaccine organisation, intended to use the school as a means to provide an alternative to mainstream education. Hope Sussex's curriculum featured the subjects you might expect in any school, but with each taught through the prism of conspiracy. Catastrophic incidents, like 9/11? Our governments know all about them in advance. Stars? Just lights in the sky. COVID-19? A PLANdemic coordinated via the *World Hoax Organisation* (Ball, 2023).

Hope Sussex was in no way the only news story of late 2022/the beginning of 2023 featuring such worrying trends as science denial, a growing belief in conspiracy theories, post truth or even the growth in "anything goes" relativism (Dickey, 2023; Hasen, 2022; Philips and Elledge, 2022). What this specific case provides, however, is an exemplar – firmly rooted in education – of the dark underbelly of ideas-engagement. In other words, if we want citizens to flourish through their exposure to new ideas and schools of thought, the flip side is that we need to find a way to ensure good ideas triumph, while the ludicrous is routinely consigned to the dustbin of nonsense (Pinker, 2021; Rushbridger, 2021). This means that if the ideas-informed society represents:

> [...] a desired situation in which: 1) citizens see value in staying up to date, and 2) citizens regularly keep themselves up to date by actively engaging with new ideas, developments and claims to truth, doing so both openly and critically (Brown, 2021; Brown *et al.*, 2022a, 2022b; Brown and Handscomb, 2023; Brown and Groß Ophoff, 2022c; Brown and Luzmore, 2021; Brown *et al.*, 2022d).

Then it necessarily also needs to be bound to the notion of *quality education for all*, because a major goal of high-quality education systems should be to enable citizens to engage as critical, collaborative consumers of knowledge and new ideas, rather than succumb to harmful misinformation and conspiracy (Brown, 2021; Brown *et al.*, 2022a, 2022b; Brown and Handscomb, 2023; Brown and Groß Ophoff, 2022c; Brown and Luzmore, 2021; Brown *et al.*, 2022d).

Over the past few years, a number of studies have begun to explore the notion of the ideas-informed society and ways in which it might be actualised (e.g. see: Brown, 2021; Brown *et al.*, 2022a, 2022b; Brown and Handscomb, 2023; Brown and Groß Ophoff, 2022c; Brown and Luzmore, 2021; Brown *et al.*, 2022d; Dijkstra, 2017; Franco *et al.*, 2019; Goldstein, 2020). These include a recent systematic review, which sought to identify the ways of switching individuals on to the value of engaging with ideas (Brown, 2021; Brown *et al.*, 2022a, 2022b; Brown and Handscomb, 2023; Brown and Groß Ophoff, 2022c; Brown and Luzmore, 2021; Brown *et al.*, 2022d). One of the review's conclusions was that social networks (and discussion within these networks), may be instrumental in determining whether and how individuals engage with ideas, and the types of ideas they engage with. This indicates the potential importance of social networks and the magnitude of issues that can emerge when individuals find themselves situated within networks promoting erroneous ideas (Brown, 2021; Brown *et al.*, 2022a, 2022b; Brown and Handscomb, 2023; Brown and Groß Ophoff, 2022c; Brown and Luzmore, 2021; Brown *et al.*, 2022d) (with the network lens providing a possible reason for the occurrence of phenomenon like Hope Sussex). Given this understanding, in this paper, we do three things:

(1) explore the notion of social networks and their connection to the world of ideas;

(2) present the findings of a structural equation model, which sets out how different types of adult friendship network influence the extent to which people engage with ideas; and

(3) conclude by considering the role of education in building the capacity of future citizens to engage with ideas effectively (e.g. by devising ways to help future citizens remain open to the possibility of change and ready to accept the validity of other opinions; even when finding themselves situated among networks of people who think alike).

We begin with an exposition of the concept, importance and key features of social networks.

Social networks: *homophily* and echo chambers

Social networks represent our connections, or ties, to one another. It is through social networks that we are able to share resource with others as well as receive resource from them (Brown, 2021; Brown *et al.*, 2022a, 2022b; Brown and Handscomb, 2023; Brown and Groß Ophoff, 2022c; Brown and Luzmore, 2021; Brown *et al.*, 2022d; Bidart *et al.*, 2020; Christakis and Fowler, 2010; Jackson, 2019). Such resource might include money, time and knowledge, but networks also enable other types of helpful resource to be shared, including trust, friendship, inspiration and social norms (Coleman, 1988; Putnam, 2000). In terms of the focus of this paper, social networks thus provide a conduit through which individuals gain access to ideas (Brown, 2021; Brown *et al.*, 2022a, 2022b; Brown and Handscomb, 2023; Brown and Groß Ophoff, 2022c; Brown and Luzmore, 2021; Brown *et al.*, 2022d). Yet, a number of factors influence an individual's ability to access ideas via their social networks. These include the following:

- The size of a given network, which is represented by the number of people an individual is connected with. This is because, almost by definition, a larger network, especially if it contains a diverse range of people, is more likely to contain with it a greater range of ideas than a small network (Christakis and Fowler, 2010; Neal, 2013).

- The position an individual holds within a network: with *centrality* – the number of people within a network that individuals are directly connected to – positively influencing one's ability to access resource (Christakis and Fowler, 2010; Jackson, 2019). In part, this is because holding a central network position heightens the possibility that individuals within the network will act more favourably towards us (with studies showing we are more likely to favour people when there is less social distance between us and them: Dias, 2017).

- Network density, which describes the extent to which one's network connections all know each other (Moolenaar and Sleegers, 2010; Neal, 2013).

In a dense network, many people are connected to one another; conversely in a sparse network, there are fewer links between people. We return to the consequences of dense networks later in the paper.

But as well as providing access to ideas, an individual's social networks also contain within them norms about how we engage with ideas. In other words, the attitudes of those we are connected to – in terms of certain specific ideas – will affect how we are likely to engage with those ideas (Berger, 2016; Brown, 2021; Brown *et al.*, 2022a, 2022b; Brown and Handscomb, 2023; Brown and Groß Ophoff, 2022c; Brown and Luzmore, 2021; Brown *et al.*, 2022d) Take, for instance, research by Dostie-Goulet (2009), which involved an annual survey of 499 young people in Canada, over the course of three years, and sought to explore how social networks influenced participants' interest in political matters. Dostie-Goulet's (2009) results indicate that, where the networks of young people were actively involved in political discussion (and in particular, if the parents of the young people surveyed took part

in such discussion), then respondents were significantly more interested in politics than those in networks where such discussion was absent. Networks therefore distribute norms and beliefs about given ideas, as much as they serve to distribute the ideas themselves.

While individuals have some agency over certain network characteristics, such as network size, other network-related phenomenon, such as *homophily*, tend not to involve conscious decision-making (Brown, 2021; Brown *et al.*, 2022a, 2022b; Brown and Handscomb, 2023; Brown and Groß Ophoff, 2022c; Brown and Luzmore, 2021; Brown *et al.*, 2022d; Berger, 2016; Christakis, and Fowler, 2010; Coleman, 1988; Jackson, 2019; Putnam, 2000). Homophily represents the idea that *like attracts like* or, as it is more commonly expressed, that "birds of a feather flock together" (Turner, 1545). In essence, homophily dictates that individuals tend to form networks with others who they see as being like themselves (Berger, 2016; Christakis, and Fowler, 2010). Conversely, that individuals make fewer connections with people with whom they believe they have little in common. Such perceptions of likeness can come from anywhere, although most often they are dominated by basic criteria, including ethnicity, social class, location, hobbies/interests, profession/the same area of expertise or political beliefs and worldview (Christakis and Fowler, 2010; Jackson, 2019). Correspondingly, homophily can apply to attitudes as much as it can apply to physical appearance, or any other perceived similarity. Furthermore, homophily can also combine with other network characteristics, such as network density (Jackson, 2019). This is potentially problematic because, in dense networks, existing ideas tend to be recycled and amplified, with little in the way of novel informational ingress (Centola *et al.*, 2005; Christakis, and Fowler, 2010; Jackson, 2019; Moolenaar, and Sleegers, 2010); in other words, dense networks can often become "echo chambers". Homophily thus clearly matters if it is associated with specific beliefs, norms or ideologies and as a consequence leads to certain tightly knit groups cleaving to particular views, while excluding others: potentially resulting in situations such as those represented by the setting up of Hope Sussex school.

Research questions

A key question, however, is whether there are types of homophily that – by the very nature of those they bring together – promote ideas engagement and the valuing, by individuals, of keeping abreast of ideas more generally? In other words, are certain forms of homophily more likely to engender ideas-engagement among groups of individuals than others? To investigate this question, we re-analysed survey data collected in 2021 to explore the extant "state of the nation" in terms of whether and how individuals keep themselves up to date with new ideas. We decided to return to this data because, as well as providing a dependent variable of interest: the notion of valuing staying up to date (operationalised for the purpose of the survey as the question: "How important is it to you to keep up to date with news, current affairs and new developments [such as, political, economic and scientific developments]"), our original questionnaire also included items corresponding to four homophily-related independent variables relating to respondents' friendship groups. Specifically, our questionnaire asked whether survey respondents and their friends:

(1) shared common political beliefs;
(2) worked in similar occupations;
(3) held similar qualifications; and
(4) lived in the same neighbourhood.

These are all factors that have all been identified in previous analyses as forms of homophily that potentially contribute to commonality in norms and values because people who are similar to one another (in these and other ways) are more likely to:

- share interests;
- communicate more frequently;
- be more willing to trust shared information; and
- be more responsive to adopting behaviours and beliefs (Daw *et al.*, 2015; McPherson *et al.*, 2001; Putnam, 2000).

Furthermore, our survey included an item that asked whether respondents' friendship networks provided a means through which they stay up to date ["How often do you discuss news, current affairs and new developments (such as political, economic and scientific developments) with friends"]. Full detail on these survey items is presented in Table 1, below.

Altogether, therefore, these questions enable us to explore:

- the existence and potency of homophilic friendship networks;
- whether such networks drive respondents' ideas-engagement with their friends; and
- whether the discussion of ideas with friends has any impact on the importance respondents place on staying up to date.

Specifically, therefore, our research questions for this are:

RQ1. What is the magnitude of each friendship homophily type?

RQ2. To what extent do different homophily types influence the discussion of new ideas with friends?

RQ3. To what extent does the discussion of new ideas with friends influence the importance people ascribe to staying up to date with new ideas?

Variable type	Question(s)	Response options
Independent	Do your friends share the same political views as you?	Five-point Likert scale, ranging from "All do" to "None do" (with "Don't know" also an option).
Independent	Do your friends have the same level of qualifications as you?	Five-point Likert scale, ranging from "All do" to "None do" (with "Don't know" also an option).
Independent	Do your friends have the same occupation type as you?	Five-point Likert scale, ranging from "All do" to "None do" (with "Don't know" also an option).
Independent	Do your friends live in the same neighbourhood as you?	Five-point Likert scale, ranging from "All do" to "None do" (with "Don't know" also an option).
Dependent/ Independent	How often do you discuss news, current affairs and new developments (such as political, economic and scientific developments) with friends?	Six-point frequency scale, ranging from "Once a day or more" to "Never" (with "N/A" also an option).
Dependent	How important is it to you to keep up to date with news, current affairs and new developments (such as political, economic and scientific developments)?	Four-point Likert scale, ranging from "Not important" to "Very important".

Table 1.
Study variables and survey items

Source: Authors' own work

Answering these research questions, thus enabling us to begin to understand what is required from education systems if we are to build individuals' capacity to engage effectively with ideas, given the impact of social networks in which they are enmeshed.

Sample
For our original study, our survey sample was required to be:

- nationally representative of England based on age (18+), gender, socio-economic group and geographic region; and
- comprised of at least 1,000 respondents (to enable statistically significant analysis at the level of various sub-groups).

To achieve a sample of this nature we used the panel survey approach, which involves recruiting members to a panel, with potential respondents confirming their interest in taking multiple surveys over an extended period of time. Rather than create our own panel, we opted to use an existing member panel: with our sample recruited via the market research polling firm Bilendi. Bilendi recruits members to its panel using multiple online sources including the following:

- search engine optimisation approaches to attract "walk in" traffic;
- pay-per-click link throughs;
- online display advertising;
- direct emails;
- social media advertising;
- social influencers; and
- brand loyalty partnerships.

To receive surveys, Bilendi members create an account and in doing so provide a full range of socio-demographic information to ensure surveys are targeted appropriately. Panel members can be contacted up to three times a day, and as a reward for survey completion, members receive "points;" with these points subsequently exchangeable for products. It is up to panel members as to whether they complete a survey or not; should a panel member decide not to take part, an equivalent replacement is contacted instead. The survey was completed by 1,000 Bilendi panel members of voting age plus, between 29 July and 4 August, 2021. The final survey was representative within a maximum $5\% \pm$ variation) and the data provided by Bilendi was weighted to account for any variation that might occur based on age, gender, socio-economic group and geographic region.

Analysis
To address our three research questions, we undertook descriptive analysis as well as constructed a structural equation model (using SPSS AMOS version 28: Arbuckle, 2021). Structural equation modelling – or path analysis – is a multivariate method used to represent how various aspects of a given phenomenon are thought to causally connect to one another. For the evaluation of the fit of our model, different fit-indices were used (Geiser, 2012; Marsh *et al.*, 2004; Moosbrugger and Schermelleh-Engel, 2012): for instance, that RMSEA < 0.080 and CFI > 0.900 indicates an acceptable fit, and RMSEA < 0.050 and CFI > 0.970 indicates a good model fit.

As a first step, the independence of the friendship homophily-related items were assessed using the variance inflation factor (VIF) test for multicollinearity. Having confirmed that each of the independent variables was measuring different variance in the dependent variable (all VIF statistics were well below 3), confirmatory measurement models were then developed, which, in turn, were used to produce the overall structure model. These allowed the exploration of possible interconnections between the independent variables (e.g. the possibility of friends sharing an occupation type if they also share similar levels of qualification, or sharing the same political views if they live in a similar place). The resulting correlations and regression coefficients (see Tables 2 and 3) thus provide information about the effect of the predictor variables on the dependent variables as well as the interplay between predictor variables.

Findings

We address *RQ1* ("What is the magnitude of each friendship homophily type?") by examining our descriptive statistics. As can be seen in Table 4, of the four friendship homophily types under investigation, two would seem most prominent. First, in response to the question: "Do your friends share the same political views as you?", nearly a third (32%) of survey participants report that either "all" or "most" do; with three quarters (74.6%) recording that at least "some" do. The second most potent homophily type relates to shared level of education: here 27.2% of respondents indicate that either "all" or "most" of their friends hold the same level of qualification as them, whereas 72% indicate that at least "some" do.

The final two possible homophily types seem less pronounced, however. For example, in terms of locality, we see that only a fifth of respondents (21%) report that "all" or "most" of their friends live in the same neighbourhood as they do (which rises to 56.1% when also including those who report that at least "some" of their friends live close by). Finally, in terms of occupation, just over half of respondents (51.5%) indicate that "very few" or "none" of their friends have a similar occupation type to them; 48.5% reporting that at least "some" of their friends work in similar roles.

To address *RQ2* ("To what extent do different homophily types influence the discussion of new ideas with friends?") we again begin by exploring the descriptive statistics. As can be seen in Table 5, respondents indicated that they most commonly discuss new ideas with their friends at least once a week or more (34.1%); with 8.5% discussing ideas at least once a day and nearly two-fifths (57.8%) engaging in ideas-related discussion with their friends at least once a fortnight. A fifth (20.7%) rarely or never engage in this type of discussion, however. Our structural equation model (presented in Figure 1 below) begins to provide further insight, however, in terms of the types of homophily that have most impact on such discussion. For instance, it illustrates that, of the two biggest homophily types (shared political views and shared level of qualification), it is only shared political views that actually has a sizable and significant impact on the frequency with which respondents discuss ideas with friends (an effect size of 0.326; p-value of <0.01). The impact of having shared qualifications, on the contrary, is both insignificant ($p = 0.117$) and has only a small effect size (0.054). On the other hand, although smaller in terms of the percentages of people reporting it as a form of homophily, shared occupation type has a significantly positive impact, albeit small, on the frequency with which respondents discuss ideas with friends (an effect size, 0.91; p-value of 0.04). Having their friends live in the same community also has a significant impact on the frequency with which respondents discuss ideas with them, but the overall size of this impact is tiny (an effect size of 0.065; $p = 0.044$). Thus, of the homophily types examined, having similar political perspectives appear most potent, i.e. the more individuals share political beliefs, the more frequently they will engage in ideas-related discussion.

		Estimate	SE	Critical ration (*t*-value)	*p*-value
χ^2/df = 13.683 / 4 = 3.42					
RMSEA = 0.049; CFI = 0.988					
How often discuss ideas with friends?	<—	Friends share same occupation type as you?	0.091	0.047	2.849	0.004
How often discuss ideas with friends?	<—	Friends live in the same neighbourhood as you?	0.065	0.047	2.014	0.044
How often discuss ideas with friends?	<—	Friends share same political views as you?	0.326	0.048	9.440	***
How often discuss ideas with friends?	<—	Friends have the same level of qualifications as you?	0.054	0.051	1.566	0.117
Importance of keeping up to date with ideas?	<—	How often discuss ideas with friends?	−0.345	0.020	−11.452	***

Note: ***indicates that $P \leq 0.001$
Source: Authors' own work

Table 2.
Path model
standardised
regression weights

Independent variables			Estimate
Friends share same political views as you?	<–>	Friends have the same level of qualifications as you?	0.469
Friends share same occupation type as you?	<–>	Friends share same political views as you?	0.287
Friends live in the same neighbourhood as you?	<–>	Friends share same political views as you?	0.343
Friends share same occupation type as you?	<–>	Friends have the same level of qualifications as you?	0.329
Friends live in the same neighbourhood as you?	<–>	Friends have the same level of qualifications as you?	0.272
Friends share same occupation type as you?	<–>	Friends live in the same neighbourhood as you?	0.288

Source: Authors' own work

Question	All do (%)	Most do (%)	Some do (%)	Very few do (%)	None do* (%)	Don't know* (%)	M(SD)
Do your friends share the same political views as you?	5.1	26.9	42.6	6.6	2.4	16.4	3.24 (1.44)
Do your friends have the same level of qualifications as you?	3.4	23.8	44.8	12.0	4.7	11.2	3.24 (1.28)
Do your friends have the same occupation type as you?	2.6	9.5	29.0	25.3	26.2	7.4	3.43 (1.18)
Do your friends live in the same neighbourhood as you?	3.5	17.5	35.1	25	13.8	5	3.85 (1.20)

Notes: *That when constructing the structural equation model, "None do" and "Don't know" were combined because each response has the same impact regarding homophilic impact on the discussion of ideas with friends. In other words, if we do not know whether our friends share specific characteristics or whether none of them share specific characteristics, this implies either the lack of influence of this characteristic in terms of whether we discuss ideas with them or not, or that we do not discuss ideas with them because of their actual or lack of this characteristic
Source: Authors' own work

For *RQ3* ("To what extent does the discussion of new ideas with friends influence the importance people ascribe to staying up to date with new ideas?"), the descriptive statistics (Table 6) show that the vast majority of those surveyed (70.7%) view staying up to date with new ideas (i.e. news, current affairs and new developments) as important or very important. At the same time, this still leaves sizable chunk of the population (13%) actively regarding staying up to date as unimportant, with a similar amount (16.2%) seemingly ambivalent. Overall, then, almost a third of the population do not see any need to stay up to date. In terms of the extent to which the frequency of discussion of ideas with friends influences this extant situation, as we can see in Figure 1, such discussion has a significant and sizable impact on the importance respondents place on staying up to date with new ideas, with an effect size of -0.345 (p value of <0.01): the negative value of the effect size occurring because of the way the survey data was coded (with the importance of staying up to date variable coded as "5" for "very important", whereas the frequency for staying up to date variable was coded "1" for "once a day or more"). Thus, the more often ideas-related discussion that takes place with friends, the more likely it is that individuals will ascribe importance to staying up to date with new ideas.

Question	Once a day or more	Once a week or more	Once a fort-night	Every few months	Once or twice a year	Never*	n/a*	M(SD)
How often do you discuss news, current affairs and new developments (such as political, economic and scientific developments) with friends?	8.5%	34.1%	15.2%	17.9%	7.2%	13.5%	3.5%	3.35 (1.67)

Notes: *That when constructing the structural equation model, "Never" and "n/a" were combined because each response has the same impact regarding discussion. In other words, in both cases, no discussion occurs
Source: Authors' own work
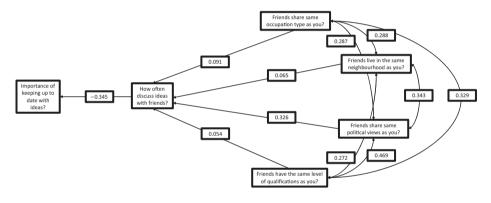
Table 5.
Frequency of
discussion with
friends

Source: Authors' own work

Figure 1.
Resulting structural
equation model for
the survey data

Question	Very important	Important	Neither	Somewhat important	Not important	M(SD)
How important is it to you to keep up to date with news, current affairs and new developments?	27.6%	43.1%	16.2%	9.9%	3.1%%	3.82 (1.04)

Source: Authors' own work

Table 6.
The importance of
keeping up to date

Conclusion

We can see that, of the homophily types explored, political homophily among friends appears to have the strongest influence on whether people discuss new ideas with their friends (an effect size of 0.326, p-value of <0.01). In turn, that this process of ideas discussion has a significant (if moderate) impact on the extent to which people value the overall notion of engaging with ideas (effect size of -0.345, p-value of <0.01).

Before discussing the implications of these findings, however, it is worth outlining an important limitation of the work. That is, by using data from an existing survey, we have been unable to include in our analysis a range of known homophily types, such as ethnicity, social class, hobbies/interests and/or religious beliefs (Christakis and Fowler, 2010; Jackson, 2019; Putnam, 2000). Some of these – for instance, those impacting on an individual's worldview – may well have implications for ideas engagement, especially if they are related to one's curiosity or outward-facingness. As such, moving forward, it would be instructive to undertake further research to examine whether such homophily types have any impact on the dependent variables of the frequency of ideas engagement with friends, as well as valuing ideas overall.

Despite this limitation, it is helpful to consider what education-related implications result from our findings, in terms of actualising the ideas-informed society. To begin with, is the question of whether it is helpful to encourage approaches for bringing together likeminded people to engage in ideas-related discussion. For example, by promoting the modern-day equivalents of coffee houses. For around 100 years across the 17th and 18th centuries, coffee houses were situated at the centre of urban life. They became popular meeting places where people gathered, not just for the coffee, but to also discuss politics, as well as make sense of scientific advances, geographic discoveries and emerging literary and artistic developments (Ellis, 2004). Contemporary reincarnations of this phenomenon (albeit one on more modest scales) include science cafés (organised by universities or corporate bodies, such as public health agencies, to facilitate the coming together of researchers and members of the public to engage in debate and discussion around science issues); the "Pint of Science", initiative that provides a space for researchers and members of the public to come together in a relaxed environment to share thoughts, questions and ideas; and notions related to the *third space* where like-minded professionals from different distinctive organisations can come together to develop possible solutions to pressing problems of policy and practice (Arhar *et al.*, 2013; Cochran-Smith and Lytle, 2009; Dijkstra, 2017; Brown, 2021; Brown *et al.*, 2022a, 2022b; Brown and Handscomb, 2023; Brown and Groß Ophoff, 2022c; Brown and Luzmore, 2021; Brown *et al.*, 2022d).

Yet, before pursuing these, or other such approaches, we should consider whether ideas-related discussion within networks of individuals sharing the same political opinions is actually problematic for the notion of the ideas-informed society in its purest sense. In other words, if the ideas-informed society is to deliver the types of benefits envisaged in Brown, 2021; Brown *et al.*, 2022a, 2022b; Brown and Handscomb, 2023; Brown and Groß Ophoff, 2022c; Brown and Luzmore, 2021; Brown *et al.*, 2022d (Brown, 2021; Brown *et al.*, 2022a, 2022b; Brown and Handscomb, 2023; Brown and Groß Ophoff, 2022c; Brown and Luzmore, 2021; Brown *et al.*, 2022d) (e.g. that citizens are potentially better informed and so better able to make effective decisions), then citizens need to know how to judge ideas, developments and claims to truth and place them into their proper context. First and foremost, such judgement, means being an effective and critical, but also collaborative, consumer of ideas, with an ability to separate facts from opinion (Franco *et al.*, 2019). Yet, how we engage with ideas is also intrinsically linked to our networks: which serve to influence the ways in which we judge (e.g. based on the opinions and other forms of socially derived and/or socially approved knowledge we have access to: Brown, 2021; Brown *et al.*, 2022a, 2022b; Brown and Handscomb, 2023; Brown and Groß Ophoff, 2022c; Brown and Luzmore, 2021; Brown *et al.*, 2022d; Schütz, 1946). Does this mean, therefore, that networks of politically alike individual are more likely to overlook (i.e. fail to engage in a critical examination of) ideas that challenge the pre-existing beliefs/worldview that being a member of a specific network

propagates (Kahneman, 2011)? And *in extremis*, will network membership reduce one's criticality to such an extent that it leads to more Hope Sussex-type outcomes? Or, alternatively, might it be feasible that citizens are still able to recognise the issues associated with idea "balkanization" while challenging themselves to be open minded and willing to learn (Global Agenda Council on Informed Societies, 2013)? Findings from the systematic review undertaken by Brown, 2021; Brown *et al.*, 2022a, 2022b; Brown and Handscomb, 2023; Brown and Groß Ophoff, 2022c; Brown and Luzmore, 2021; Brown *et al.*, 2022d (Brown, 2021; Brown *et al.*, 2022a, 2022b; Brown and Handscomb, 2023; Brown and Groß Ophoff, 2022c; Brown and Luzmore, 2021; Brown *et al.*, 2022d) identify two areas for further exploration if this question is to be resolved.

The first of these areas relates to findings from analysis undertaken by Erisen and Erisen (2012), in which it is argued that the nature of the social network that people belong to actively impacts of the *quality* of engagement with ideas, such as those related to political thinking. Here, Erisen and Erisen (2012: 843) define "quality" political thinking as:

> [. . .] the extent to which an individual can express knowledge on political issues and concepts, observe the causal connections in political issues, and differentiate among the distinct dimensions of issues and the alternative ways of approaching a potential political problem.

Erisen and Erisen's findings indicate that those in cohesive social networks (i.e. who have strong close relationships with, e.g. friends), are more likely to exhibit less "complex thinking" and less able to produce policy-relevant thoughts. In other words, having a closed social network is negatively associated with quality of political thinking while, conversely, a wider social network where communication includes people from different social contexts, is likely to increase the chances of quality political thinking.

Yet, even though sparse networks are often associated in the literature with higher levels of open-mindedness and dense networks associated with network members holding onto and reinforcing existing ideas, others have suggested that, even in socially homogenous networks, there is still the potential for people to share ideas and information that do not necessarily align with their own political or ideological positions (Masip *et al.*, 2018). In other words, homogenous social networks may not necessarily become informationally isolated. This is especially so when discussion also occurs in online social networks; with Thomas and Vinuales (2017) suggesting that alternative viewpoints can pique users' curiosity and encourage interaction and engagement. While unfortunately, our survey did not collect data on the density of participants' network ties, nor did we ask questions relating to the approaches respondents take to engage critically with ideas, given this mixed perspective, one direction for future research is to investigate the impact of dense/sparse politically homophilous friendship networks in terms of individuals' exposure to and open-mindedness towards a range of new ideas, as well as explore the affect dense networks can have on peoples' judgement of and the quality of their engagement with such ideas. This should thus provide an indication of whether, or not, promoting politically homophilous friendship networks provides a fruitful avenue in terms of driving forward the ideas-informed-society.

The second area for investigation for future research centres on what is required from education systems if we are to build individuals' capacity to engage with ideas effectively; especially among networks of people who tend to think alike. As we note at the beginning of this paper, Hope Sussex presents an exemplar of the dark underside of a more rational desire for society to be ideas-informed. On one hand, we want citizens to flourish via an exposure to new ideas and schools of thought, on the other, it is imperative that it is the best ideas that prevail. In all likelihood, the founders of Hope Sussex may

well believe they are keeping themselves meaningfully up to date. Thus, what is required is to ensure idea-engagement is meaningfully critical in nature. Two key aspects come into play here. First is the level of education, which can positively influence one's ability to engage with ideas critically. To begin with, level of education represents an indication of one's general level of knowledge, gleaned from compulsory/further education and as well as the domain-specific knowledge that an effective higher education provides. Both general and domain-specific knowledge furnish individuals with the material to enact critical thinking. In other words, one can more readily engage with new ideas critically, when one has a general understanding of the general knowledge–related context and of the general knowledge–related concepts underpinning those ideas. For instance, understanding why science knows the world to be spherical in shape provides the general background required to engage critically with those who would promote that this is flat. Likewise, it is easier to engage in an accurate but "fast and frugal" diagnosis of an issue when one has advanced domain-specific knowledge (Couchman *et al*., 2016). Thus, keeping people educated for as long as possible increases the knowledge they can draw on as they engage with new ideas.

Yet, as well as providing the raw material upon which to base critical thinking, experiencing increasingly higher levels of education substantially improves one's disposition towards and the ability to engage in critical thinking (e.g. see the meta-analysis undertaken by Huber and Kuncel, 2016). Nonetheless, to ensure everyone can quickly develop competence in this area, there is a need to ensure – right from the very start of schooling – there is a focus on judgement. In other words, focusing on ways to ensure children and young people are able to separate facts from opinion (Franco *et al*., 2019): a state also referred to as being "informationally literate" (Goldstein, 2020). Approaches in this area may include developing an understanding as to what heuristics and/or guidance are most effective in helping form positive ideas-related habits. For example, Franco *et al*. (2019) posit a number of steps that can be used to guide children on how to support themselves in this endeavour. These include:

- engaging fully with the idea, development or claim to truth;
- finding the key arguments presented in favour of its main area of focus;
- scrutinising the credibility of the idea source (e.g. how is the source qualified to present the idea, development or claim to truth), while also assessing whether it is presented from a stance of neutrality and objectivity;
- examining what people or organizations are presented as figures of authority;
- reflecting on the objective of presenting the idea, development or claim to truth (e.g. is the intention to persuade, inform, entertain. . .) and who might benefit as a result;
- checking whether critique of the idea is welcome;
- searching for counter-ideas or arguments, which also do not corroborate or reinforce one's own beliefs on that topic;
- exploring if that same idea, development or claim to truth has been disseminated (and so supported) by another source; and
- determining whether there are references to support any evidence presented, and whether these can be verified.

Yet the effectiveness of these steps in achieving positive ideas-engagement is yet to be empirically confirmed.

Finally, research is also needed to help understand how best to educate children and young people so as to enable them to participate in effective interpersonal engagements as future citizens. This could entail, for instance, what is effective in helping individuals understand how to remain open to the possibility of change and ready to accept the validity of other opinions (Franco *et al.*, 2019; Schütz, 1946); what works in helping individuals possess both the desire and the ability to engage in respectful and reflective discussion; and what programmes successfully help future citizens develop the ability to put themselves in the place of others to meaningfully understand them – recognising that those we debate with are also people with beliefs, values, ideas and life experiences of their own (Baer, 2020; European Commission, 2018; Goldstein, 2020; Sacks, 2020). Thus, altogether, these three areas of research provide a way forward in helping us understand how, when birds of a feather do flock together, we can help ensure future citizens are anything but headless chickens.

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