Humility in social networks

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Abstract

What do humility, intellectual humility, and open-mindedness mean in the context of inter-group conflict? We spend most of our time with ingroup members, such as family, friends, and colleagues. Yet our biggest disagreements —— about practical, moral, and epistemic matters —— are likely to be with those who do not belong to our ingroup. An attitude of humility towards the former might be difficult to integrate with a corresponding attitude of humility towards the latter, leading to smug tribalism that masquerades as genuine virtue. These potentially conflicting priorities have recently come to the fore because "tribal epistemology" has so thoroughly infected political and social discourse. Most research on these dispositions focuses on individual traits and dyadic peer-disagreement, with little attention to group membership or inter-group conflict. In this chapter, we dilate the social scale to address this pressing philosophical and social problem.

Keywords

humility, inter-group conflict, open-mindedness, virtue

Word count

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Introduction

In recent years, philosophers have begun to theorize and psychologists to measure a suite of related dispositions:

- modesty (Bommarito 2013; Wilson 2016),
- humility (Driver 2001; Saucier 2009; Lee & Ashton 2018),
- intellectual humility (Roberts & Wood 2007; Hazlett 2012; Samuelson et al. 2015; Krumrei-Mancuso & Rouse 2015; Alfano et al. 2017; Leary et al. 2017; Whitcomb et al. 2017; Haggard et al. 2018), and
- open-mindedness (Riggs 2010; Baehr 2011; Madison forthcoming; Kwong forthcoming). At the same time, philosophers and psychologists have addressed a range of dispositions that, in one way or another, seem to oppose these dispositions, including:
 - vanity (Egan & McCorkindale 2007; Roberts & Wood 2007),
 - narcissism (Egan & McCorkindale 2007; Paulhus & Williams 2002; Roberts this volume),
 - arrogance (Howard-Snyder 2018, Tanesini 2016a, 2016b),
 - pride (Roberts & Wood 2007; Tracy et al. 2009; Carter & Gordon 2017; Roberts this volume),
 - myside bias (Taber & Lodge 2006; Westen et al 2006; Stanovich & West 2007; West & Stanovich 2008; Wolfe & Britt 2008; Levy & Alfano 2019),
 - dogmatism (Cassam 2016), and
 - intellectual insouciance (Cassam 2018).

The first family of dispositions seems, at least at first blush, to encompass intellectual virtues, while the latter seems to be a rogues' gallery of intellectual vices. That said, there have been a number of contrarian positions defending, for example, closed-mindedness, staked out by Battaly (2018) and Fantl (2018).

In this chapter, we address a problem internal to the suite of dispositions referred to as modesty, humility, intellectual humility, and open-mindedness. For the sake of brevity, we will refer to them collectively as *h-traits*. The problem is this: if someone who embodies h-traits spends the bulk of their time, attention, and engagement with a homogeneous ingroup, they are liable to overcome myside bias (closely related to the broader phenomenon of confirmation bias) at a significant social epistemic cost. Myside bias is a disposition to seek out, interpret, prize, and remember information in a way that supports my side of an argument in an interpresonal dispute. Consider a different bias, which we might call *ourside bias*. This is a disposition to seek out, interpret, prize, and remember information in a way that supports our side of an argument in an intergroup conflict. Our contention is that, in many real-world contexts, the h-traits forestall myside bias at the cost of exacerbating ourside bias. For example, humbly conciliating about practical values with one's ingroup can in some circumstances lead to even starker practical

conflict with outgroups. And humbly conciliating about what one believes or accepts as epistemically rational with one's ingroup is liable to lead to even starker epistemic conflict with outgroups. Ourside bias thus has both practical and epistemic import. So, to the extent that it is exacerbated by the h-traits, we should be leary of cultivating and recommending them.

If this is on the right track, then people who embody h-traits are especially liable to participate in a process of group polarization (Brady et al. 2017; Van Bavel & Pereira 2018; Sunstein 2017) that leads to the development of "filter bubbles" and "echo chambers" (Pariser 2011; see also Nguyen forthcoming). Avoiding this effect may require them either to develop different dispositions from the h-traits or to rewire their networks of trust so that their h-traits function more appropriately. Our claim is that the evaluative character of h-traits — whether they should be considered epistemically good or not — depends on the structure of the social networks in which agents find themselves. This idea could be given a strong interpretation, according to which epistemic virtues are partly constituted by the material, social, and political environment, or a weaker interpretation, according to which epistemic virtues are essentially embedded in material, social, and political environments. Alfano & Skorburg (2017) call these positions the extended and embedded character hypotheses, respectively. We contend that unless one's social network is structured in a way that many real social networks are *not* (Sullivan et al. forthcoming; Alfano et al. 2018), one's h-traits may fail to qualify as virtues. For instance, recent simulations suggest that even ideally rational Bayesian agents are guaranteed to polarize in their opinions unless the patterns of epistemic trust and distrust that connect them are structured in the right way (Pallavicini et al. forthcoming). These structures in the *topology* of social networks can be analyzed and sometimes ameliorated at both the local and global level (Alfano 2016).

The tension between myside and ourside bias is a problem because the h-traits are —— ideally —— supposed to forestall both individualistic manifestations of vanity, undue pride, and so on and groupish manifestations of these vices such as "racism, sexism, ethnic hatred, religious hatred, and homophobia" (Spezio et al. 2018; see also Christen, Alfano, & Robinson 2017; Christen, Robinson, & Alfano 2014). We thus need to reconsider how people can best ensure that h-traits are expressed in appropriate attitudes not only towards towards members of their own communities (a topic that has been addressed in the literature) but also towards those who belong to other communities (a topic that has been largely neglected).

Here is the plan for this paper: in section 1, we argue that h-traits plausibly correct or ameliorate myside bias. Next, in section 2 we argue that, given how people's social networks are typically structured, h-traits can be expected to lead to ourside bias. Finally, in section 3 we explore three approaches to resolving the dilemma we've diagnosed. The first involves restructuring one's social network so that ourside bias is not exacerbated by h-traits. The second involves emulating the Socratic figure of the gadfly. And the third involves the Nietzschean virtue of solitude.

1 H-traits and myside bias

Myside bias is a manifestation of a broader phenomenon referred to as confirmation bias (McKenzie 2004). It is tempered in social contexts when the group is decentralized and contains a diversity of opinions (Surowiecki 2004; see also Masterton et al. 2016, 2017, 2018 and Zollman 2012). In such groups, each individual's myside bias is harnessed in a way that leads to a better overall outcome. In particular, Mercier & Sperber (2019) argue that that the people who are sympathetic to p will tend to find and emphasize all the relevant evidence and arguments in favor of p, while those who are unsympathetic to p will tend to find and emphasize all the relevant evidence and arguments against p. Together, then, they manage to take into account all the evidence and arguments both in favor of and against p. Such a division of cognitive labor seems to be essential to many human cognitive successes. Social scientists have institutionalized it in the form of adversarial collaborations (Mellers et al. 2001). If one is good enough at role-playing, one can even form an adversarial collaboration with oneself (Alfano 2018).

The h-traits plausibly assist in these processes. For example, Baron (2008) argues that actively open-minded thinking opposes myside bias. Presumably, people high in open-mindedness are more disposed to engage in actively open-minded thinking (else, the construct lacks what social scientists call face validity¹). If this is right, then open-mindedness can be expected to undercut the disposition to myside bias.

Likewise, someone high in modesty would presumably engage more effectively with people with whom she disagrees than someone low in modesty. According to Bommarito (2013), modesty is a virtue of attention: it involves actively attending to things other than oneself and one's own qualities and excellences. Doing so should obscure what my side of an argument or dispute even is, making it less likely that I manifest myside bias.

Next, consider humility. In the HEXACO personality inventory (Lee & Ashton 2018), humility is measured by agreement with the following two items: "I am an ordinary person who is no better than others," and "I wouldn't want people to treat me as though I were superior to them." It is also indicated by disagreement with the following two items: "I think that I am entitled to more respect than the average person is," and "I want people to know that I am an important

¹ Face validity is a property of a psychometric instrument. When an instrument is valid "on its face" that means that it intuitively taps into the construct that it allegedly measures. For example, an intelligence test that in no way required someone to solve a problem, answer a question, draw an inference, or exhibit a skilled behavior would lack face validity. Likewise, a psychometric test of open-mindedness that in no way tapped into actively open-minded thinking would lack face validity.

person of high status." The division of cognitive labor mentioned above only works when people are able to take seriously those with whom they disagree, and to continue engaging with them over a period of time. Someone who scores high on the humility scale would, presumably, do just that. For these reasons, humility should also help someone overcome myside bias.

Finally, intellectual humility seems especially suited to helping its bearer overcome myside bias. Theorists characterize intellectual humility in terms of very low concern for one's intellectual reputation and entitlements (Roberts & Wood 2007), openness to others' views and engagement with those who disagree (Alfano et al. 2017), and owning one's intellectual limitations (Whitcomb et al. 2017). All of these dispositions make one more likely to take seriously evidence that runs contrary to one's beliefs and expectations, and thus to overcome or forestall myside bias.

2 H-traits and ourside bias

Most research on intellectual humility and other h-traits focuses only on individual traits and peer-disagreement, with little attention to group membership and the inter-group conflict that so easily arises given the all-too-human tendency to form coalitions and engage in partisan competition and conflict (Van Bavel & Pereira 2018). This is problematic because the h-traits could be practiced or expressed in a partial and partisan way, which has the potential to exacerbate inter-group arrogance that manifests in "racism, sexism, ethnic hatred, religious hatred, and homophobia" (Spezio et al. 2018). For example, Brady et al. (2017) have found that moral-emotional language is especially likely to go viral in polarized networks, and that it may drive the poles further and further apart. Appealing to what is valued by the ingroup (whether it is genuinely valuable or not) may come at the cost of inter-group understanding.

Thus, despite what we've just said in favor of the h-traits in relation to myside bias, we fear that they may have the opposite evaluative valence in relation to ourside bias. Recall that we have defined ourside bias as a disposition to seek out, interpret, prize, and remember information in a way that supports our side of an argument in an intergroup conflict. There are several reasons to think that someone who embodies the h-traits *and* spends the bulk of their time, attention, and engagement with their ingroup is especially liable to exhibit ourside bias.

First, someone is especially likely to consider those who are fellow members of their ingroup to be epistemic peers. This notion of peer-hood coupled with embodying h-traits leads to conciliatory behavior in the face of peer-disagreement, especially in cases where someone has a minority opinion compared to the rest of the ingroup. Over time, this may lead to group convergence on a set of shared opinions and evidence. Importantly, group convergence comes out of cultivating h-traits and conciliating in a way that is often called for in the case of

peer-disagreement (Christensen 2007). In light of group convergence, conciliation in the face of disagreement with members of one's *out*group is not obvious. One could argue that one's interlocutor does not qualify as a peer because of the differing group membership, or one might become steadfast in the face of the disagreement. For example, Zagzebski (2012) and Pasnau (2015) argue that self-trust is an important factor to consider in cases of peer-disagreement. They argue that there are cases where conciliating is not epistemically required because self-trust is epistemically basic. It is our contention that h-traits that cultivate ingroup conciliation, cultivate *ingroup-trust*. In the face of ingroup-trust, steadfastness towards outgroup members appears epistemically virtuous. Thus, the very h-traits that help people overcome myside bias set them on the path to ourside bias. More precisely, the h-traits can be expected to do this if, like most people's, the agent's social network is structured around a relatively homogeneous and homophilic ingroup.

One might here object that treating *anyone* as a member of an outgroup is inconsistent with the h-traits. Perhaps the genuinely intellectually humble person agrees with the Roman poet Terence in thinking, "I am human; nothing human is alien to me." We think that this is too extreme a constraint to put on the h-traits. Almost everyone enjoys a sense of community with a small subset of the full human population (Dunbar 1993). While cosmopolitanism of a sort is valuable, that does not mean that people should be expected not to form partial attachments, involving trust, with small groups. What is at issue, then, is how one's community of trust is formed, shaped, structured, and modified over time, as well as one's disposition towards those who are not already part of one's community. In the next section, we turn to such processes of forming, shaping, structuring, and modification.

If our arguments in this section are on the right track, they run contrary to Rini's (2017) claim that "partisanship-in-testimony-reception is sometimes compatible with epistemic virtue," and to Levy's (2017) argument that the best thing to do in many cases is to go out of one's way to avoid testimony that one regards as prima facie fake news. Walling oneself off in an enclave of like-minded thinkers may be comfortable and cozy, but it risks aggravating ourside bias — especially in those who embody h-traits.

3 Rescuing h-traits via the gadfly, curiosity, and solitude

Just as generosity without thrift or honesty without tact can fail to be fully virtuous, so ingroup-oriented h-traits without outgroup-oriented h-traits (and vice versa) can fail to be fully virtuous. However, philosophers and psychologists have paid little attention to balancing ingroup and outgroup h-traits. Much of trait psychology focuses on pan-situational dispositions. Even research on social dominance theory (Pratto et al. 1994) tends to treat the social dominance orientation as pan-situational. This is especially troubling because the deep-seated conflicts that

are readily apparent in many contemporary societies embody a tension between ingroup and outgroup h-traits. In addition, while the cultivation of virtuous dispositions is no doubt part of the solution, the structure of social networks is likely to play just as big a role. If the voice of one's community is amplified while outsiders are silenced, one is likely to end up with an arrogant attitude towards outsiders. Deferring to members of one's ingroup is liable to intensify conflicts with outgroups, but criticizing one's ingroup runs the risk of appearing or being intellectually arrogant and can lead to social exclusion.

How should we respond to the antinomy between myside and ourside biases? We believe the answer resides in a joint understanding of both the h-traits themselves and the social structures in which they are embedded. In this section, we canvass three mutually-compatible strategies: the gadfly, curiosity, and solitude.

3.1 H-traits and the gadfly

One approach to reducing ourside bias relies on the Socratic figure of the gadfly.² In Plato's *Apology* 30e, Socrates famously compares himself to a gadfly and his community (Athens) to a sluggish horse. Here we quote at length:

[I]f you kill me you will not easily find another like me. I was attached to this city by the god — though it seems a ridiculous thing to say — as upon a great and noble horse which was somewhat sluggish because of its size and needed to be stirred up by a kind of gadfly. It is to fulfill some such function that I believe the god has placed me in the city. I never cease to rouse each and every one of you, to persuade and reproach you all day long and everywhere I find myself in your company.

The idea behind this metaphor is that, despite the pain he causes to his ingroup, Socrates manifests an other-regarding moral and intellectual virtue. He systematically and repeatedly provokes members of his ingroup to examine not only their own lives and values, but also the values of their shared community. He forces them to consider the extent to which they understand their own motives, customs, and norms, as well as the rationale for these motives, customs, and norms. He prompts them to reconsider whether their own local customs are indeed best. Furthermore, he approaches only members of his ingroup in this way. Socrates does not play the role of the devil's advocate (to use a more recent metaphor) with every interlocutor he

² There is some controversy about how to translate $\mu v'\omega\psi$, which could also reasonably be rendered as 'spur' in this context (Marshall 2017). For our purposes, either translation makes sense, and spur may even be more appropriate, as it implies a pedagogical function rather than merely causing annoyance.

encounters; instead, he focuses his critical energies on the most (over-)confident members of his ingroup: adult male citizens of Athens. In so doing, he undermines their confidence (sometimes) and makes them less secure in their own parochial smugness. This is the sort of thing that should have a salutary effect in reducing ourside bias, since it makes the ingroup default less appealing and seemingly obvious.

However, being a Socratic gadfly — someone disposed to turn a critical eye to their own community's conventional wisdom in order to goad the community into reflection and reform — is challenging and risky. It can easily shade over into contrarianism for its own sake. And a community composed entirely of gadflies would hardly be a community at all. Socrates here assumes that there is a division of moral and intellectual labor in his community: the vast majority together are represented by the figure of the horse, whereas he alone is the gadfly. This prompts the question whether there might be dispositions other than that of the gadfly that are worth cultivating and manifesting in other parts of a community. In addition, as the case of Socrates demonstrates, the community is liable to become defensive and even violent against the gadfly. For these reasons, it may sometimes be more prudent to adopt other strategies. We now turn to two such strategies: curiosity and solitude.

3.2 H-traits and curiosity

If we ignore social context, it might seem that there is nothing in the h-traits to worry about. After all, wouldn't someone who embodies humility, modesty, and intellectual humility be just as disposed to defer to or conciliate with an ingroup member as an outgroup member? The problem only arises because humans tend to cluster socially into groups of like-minded and like-valued individuals, a process known as homophily (Centola et al. 20017). Even if I am equally likely to conciliate and defer in each particular encounter, if most of my encounters are with people who share a common set of opinions and values, I will end up gravitating toward their views.

This is where curiosity, understood as a drive to encounter new people, places, things, and ideas, comes into play (Alfano 2013; Iurino et al. 2018; Inan et al. 2018). Someone who manages to combine curiosity with the h-traits will make a point of learning about the opinions, values, customs, and norms of people who do not belong to their ingroup. Such a person will be attracted to novelty and strangeness. As a stranger they will, in Hamlet's words, give it welcome. In so doing, they employ a social strategy to put themselves in a position to encounter information and testimony that they might not otherwise have encountered. Unlike someone in the grip of confirmation bias, then, they actively seek out those whose views are liable to differ from their own

From the point of view of social network theory, curious agents can be understood as those who go out of their way to establish heterophilic connections, i.e., to connect with those who do not belong to their ingroup. This does not mean that they necessarily shun their ingroups, just that they make a point of engaging with, learning about and from, and attending to people who belong to other groups. In so doing, they temper the ourside bias that arises in more closed-off social networks. Unlike the gadfly, then, which is primarily an other-regarding virtue, curiosity is a self-regarding virtue. It may not do much to help the community avoid ourside bias, but it should help its bearer to do so.

3.3 H-traits and solitude

The problem of ourside bias arises from the ratio between homophilic and heterophilic connections. If someone has vastly more homophilic than heterophilic connections, they are liable to suffer ourside bias. An extremely imbalanced ratio can be solved either by addition or subtraction. Whereas curiosity helps rescue the h-traits by leading its bearer to establish new heterophilic connections, the Nietzschean virtue of solitude helps by leading its bearer to sever or weaken homophilic connections.³

Solitude is a complex disposition that involves taking a distant and elevated perspective on their own community and ingroup. It protects it's bearer's psychology from being overwhelmed by the pressures and expectations of their community, from conciliating too easily and too often with their ingroup. And it prevents its bearer from provoking too much easily-internalized disapprobation from their community (this is why Nietzsche frequently associates solitude with politeness). Finally, it makes possible a collective version of the self-contempt that Nietzsche associates with both the pathos of distance and having a sense of humor. Whereas the latter two dispositions make it possible for someone to improve their character through criticism of the *II*, solitude makes it possible for someone to improve their community through criticism of the *we*—that is to say, through cultural criticism.

When Nietzsche talks about solitude, he typically has in mind emotional rather than physical distance. For example, in *Human, All-too-human* Assorted Opinions and Maxims 386, he declares that "wisdom is the whispering of the solitary [*Einsamen*] to himself in the crowded marketplaces." Solitude is the drive to get away from, and often above, one's ingroup or local community, to view that community and its values critically, and to divorce oneself from aspects of the community that one might otherwise adopt uncritically and by default. Just as the ability to laugh at oneself is an important part of self-criticism and self-improvement, so the ability to look from a distance and a height down on one's community is an important part of cultural critique.

³ See Alfano 2019, chapter 10 for a fuller account and interpretation of Nietzsche on solitude.

Solitude thus opposes precisely the vices of collective arrogance: chauvinism, narrow-mindedness, and cozy cultural smugness.

For Nietzsche, solitude is a penchant for challenging the doxastic and axiological truisms of one's community, for "indict[ing] the people's favorites" (*Ecce Homo* Books.UM2). Likewise, Nietzsche congratulates himself for writing books that "contain snares and nets for unwary birds and in effect a persistent invitation to the overturning of habitual evaluations and valued habits." (*Human, All-too-human* Preface 1). Solitude is a sort of instinctual aversion to the familiar and attraction to the strange and new. In a later passage (*Beyond Good and Evil* 212), Nietzsche points to an important philosophical precedent for his sort of solitude: Socrates the gadfly, who, as a philosopher, "*needed* to be at odds with his today: his enemy has always been the ideal of today." Philosophers tend to feel like "disagreeable fools and dangerous question-marks." Gadflies like Socrates are "the bad conscience of their age [who apply] a vivisecting knife directly to the chest of the *virtues of the age*."

But solitude differs from the gadfly in being more selective. Solitude is practiced not in the marketplace but in the library. It is therefore less liable to instigate the kind of collective punishment that ended Socrates's philosophical career (and his life). In terms of social network theory, whereas curiosity is about establishing new, heterophilic connections, solitude is about severing or weakening extant, homophilic connections.

We believe that the gadfly, curiosity, and solitude all have a role to play in rescuing the h-traits from the antinomy between myside bias and ourside bias. They seem prima facie consistent with one another, and they answer to different aspects of the problem. For these reasons, it is likely that cultivating all three and knowing which to use when is the right approach to take if one wants to avoid ourside bias.

References

- Alfano, M. (2013). The most agreeable of all vices: Nietzsche as virtue epistemologist. *British Journal for the History of Philosophy*, 21(4): 767-90.
- Alfano, M. (2016). The topology of communities of trust. *Russian Sociological Review*, 15(4): 30-56.
- Alfano, M. (2018). Nietzsche's affective perspectivism as a philosophical methodology. In P. Loeb & M. Meyer (eds.), *Nietzsche's Metaphilosophy*. Cambridge University Press.
- Alfano, M. (2019). Nietzsche's Moral Psychology. Cambridge University Press.
- Alfano, M., Cunningham, S., Meulemans, W., Rutter, I., Sondag, M., Speckmann, B., & Sullivan, E. (2018). Social network-epistemology. *Proceedings of the Institute of Electrical and Electronics Engineers eScience Conference*.
- Alfano, M., Iurino, K., Stey, P., Robinson, B., Christen, M., Yu, F., & Lapsley, D. (2017). Development and validation of a multi-dimensional measure of intellectual humility. *PLoS ONE*, 12(8): e018250.
- Alfano, M. & Skorburg, J. A. (2017). The embedded and extended character hypotheses. In J. Kiverstein (ed.), *Handbook of Philosophy of the Social Mind*, pp. 465-78. Routledge.
- Baehr, J. (2011). The structure of open-mindedness. *Canadian Journal of Philosophy*, 41(2): 191-213.
- Baron, J. (2008). Thinking and Deciding, 4th edition. Cambridge University Press.
- Battaly, H. (2018). Can closed-mindedness be an intellectual virtue? *Royal Institute of Philosophy Supplement*, 84: 23-45.
- Bommarito, N. (2013). Modesty as a virtue of attention. *Philosophical Review*, 122(1): 93-117.
- Brady, W., Wills, J., Jost, J., Tucker, J., & Van Bavel, J. (2017). Emotion shapes the diffusion of moralized content in social networks. *Proceedings of the National Academy of Sciences*, 114(28): 7313-18.
- Carter, J. A. & Gordon, E. (2017). *The Moral Psychology of Pride*. Rowman & Littlefield.
- Cassam, Q. (2016). Vice epistemology. *The Monist*, 99(2): 159-80.
- Cassam, Q. (2018). Epistemic insouciance. *Journal of Philosophical Research*.
- Centola, D., González-Avella, J. C., M., V., & Miguel, M. S. (2007). Homophily, Cultural Drift, and the Co-Evolution of Cultural Groups. *Journal of Conflict Resolution*, *51*(6), 905–929.
- Christen, M., Alfano, M., & Robinson, B. (2017). A cross-cultural assessment of the semantic dimensions of intellectual humility. *AI & Society*.
- Christen, M., Robinson, B., & Alfano, M. (2014). The semantic neighborhood of intellectual humility. *Proceedings of the European Conference on Social Intelligence*, 40-49.
- Christensen, David, 2007, "Epistemology of Disagreement: The Good News," *Philosophical Review*, 116: 187–218.
- Driver, J. (2001). *Uneasy Virtue*. Cambridge University Press.
- Dunbar, R. (1993). Coevolution of neocortical size, group size and language in humans. *Behavioral and Brain Sciences*, 16(4): 681-735.

- Egan, V. & McCorkindale, C. (2007). Narcissism, vanity, personality and mating effort. *Personality and Individual Differences*. 43(8): 2105-115.
- Fantl, J. (2018). The Limitations of the Open Mind. Oxford University Press.
- Haggard, M., Rowatt, W., Leman, J., Meagher, B., Moore, C., Fergus, T., Whitcomb, D., Battaly, H., Baehr, J., & Howard-Snyder, D. (2018). Finding middle ground between intellectual arrogance and intellectual servility: Development and assessment of the limitations-owning intellectual humility scale. *Personality and Individual Differences*, 124: 183-93.
- Hazlett, A. (2012). Higher-order epistemic attitudes and intellectual humility. *Episteme*, 8: 205-23.
- Howard-Snyder, D. (2018). Finding middle ground between intellectual arrogance and intellectual servility: Development and assessment of the limitations-owning intellectual humility scale. *Personality and Individual Differences*, 124: 184-93.
- Inan, I., Watson, L., Whitcomb, D. & Yigit, S., (eds., 2018). *The Moral Psychology of Curiosity*. Rowman & Littlefield.
- Iurino, K., Robinson, B., Christen, M., Stey, P., & Alfano, M. (2018). Constructing and validating a scale of inquisitive curiosity. In I. Inan, L. Watson, D. Whitcomb, & S. Yigit, (eds.), *The Moral Psychology of Curiosity*. Rowman & Littlefield.
- Krumrei-Mancuso, E., & Rouse, S. (2015). The development and validation of the comprehensive intellectual humility scale. *Journal of Personality Assessment*, 98(2): 209-21.
- Kwong, J. (2017). Is open-mindedness conducive to truth? Synthese, 194(5): 1613-26.
- Lee, K. & Ashton, M. (2018). Psychometric properties of the HEXACO-100. *Assessment*, 25: 543-56.
- Leary, M., Diebels, K., Davisson, E., Isherwood, J., Jongman-Sereno, K., Raimi, K., ..., Hoyle, R. (2017). Cognitive and interpersonal features of intellectual humility. *Personality and Social Psychology Bulletin*, 43(6): 793-813.
- Levy, N. (2017). The bad news about fake news. *Social Epistemology Review and Reply Collective*, 6(8): 20-36.
- Levy, N. & Alfano, M. (2019). Knowledge from vice: Deeply social epistemology. *Mind*.
- Madison, B. (forthcoming). Is open-mindedness truth conducive? *Synthese*.
- Marshall, L. (2017). Gadfly or spur? The meaning of $\mu v' \omega \psi$ in Plato's *Apology of Socrates*. *Journal of Hellenic Studies*, 137: 163-74.
- Masterton, G., Olsson, E. J. & Angere, S. (2016). Linking as voting: How the Condorcet jury theorem in political science is relevant to webometrics. Scientometrics. Akademiai Kiado.
- Masterton, G. & Olsson, E. J. (2017). From impact to importance: the current state of the wisdom-of-crowds justification of link-based ranking algorithms. *Philosophy and Technology*. Springer.

- Masterton, G. & Olsson, E. J. (2018). PageRank's ability to track webpage quality: Reconciling Google's wisdom-of-crowds justification with the scale-free structure of the web. *Heliyon*, 4(11): 1-34.
- McKenzie, C. (2004). Hypothesis testing and evaluation. In D. J. Koehler & N. Harvey (eds.), Blackwell Handbook of Judgment & Decision Making, pp. 200-19. Blackwell.
- Mellers, B., Hertwig, R., & Kahneman, D. (2001). Do Frequency Representations Eliminate Conjunction Effects? An Exercise in Adversarial Collaboration. Psychological Science, 12(4), 269–275.
- Mercier, H. & Sperber, D. (2019). The Enigma of Reason. Harvard University Press.
- Nguyen, C. T. (forthcoming). Echo chambers and epistemic bubbles. *Episteme*, 1-21.
- Pallavicini, J., Hallsson, B., & Kappel, K. (forthcoming). Polarization in groups of Bayesian agents. *Synthese*.
- Pariser, E. (2011). The Filter Bubble: What the Internet is Hiding from You. Penguin.
- Pasnau, Robert, 2015, "Disagreement and the Value of Self-Trust," *Philosophical Studies*, 172 (9): 2315–2339.
- Paulhus, D. & Williams, K. (2002). The Dark Triad of personality: Narcissism, Machiavellianism, and psychopathy. *Journal of Research in Personality*, 36(6): 556-63.
- Plato. (1997). Plato: Complete Works, edited by J. Cooper & D. S. Hutchinson. Hackett.
- Pratto, F., Sidanius, J., Stallworth, L. M., & Malle, B. F. (1994). Social dominance orientation: A personality variable predicting social and political attitudes. *Journal of Personality and Social Psychology*, 67(4), 741-763.
- Riggs, W. (2010). Open-mindedness. Metaphilosophy, 41(1-2): 172-88.
- Rini, R. (2017). Fake news and partisan epistemology. *Kennedy Institute of Ethics Journal*, 27(S2): 43-64.
- Roberts, R. (this volume). Humility and human flourishing.
- Roberts, R. & Wood, J. (2007). *Intellectual Virtues: An Essay in Regulative Epistemology*. Oxford University Press.
- Samuelson, P., Jarvinen, M., Paulus, T., Church, I., Hardy, S., & Barrett, J. (2015). Implicit theories of intellectual virtues and vices: A focus on intellectual humility. *Journal of Positive Psychology*, 10(5): 389-406.
- Saucier, G. (2009). Recurrent personality dimensions in inclusive lexical studies: Indications for a big six structure. *Journal of Personality*, 77(5): 1577-614.
- Spezio, M., Peterson, G., & Roberts, R. (2018). Humility as openness to others: Interactive humility in the context of l'Arche. *Journal of Moral Education*.
- Stanovich, K. & West, R. (2007). Natural myside bias is independent of cognitive ability. *Thinking and Reasoning*, 13(3): 225-47.
- Sullivan, E., Sondag, M., Rutter, I., Meulemans, W., Cunningham, S., Speckmann, B., Alfano, M. (forthcoming). Can real social epistemic networks deliver the wisdom of crowds? In

- T. Lombrozo, J. Knobe, & S. Nichols (eds.), *Oxford Studies in Experimental Philosophy*, vol. 2. Oxford University Press.
- Sunstein, C. (2017). #Republic: Divided Democracy in the Age of Social Media. Princeton University Press.
- Surowiecki, J. (2004). The Wisdom of Crowds. Anchor.
- Taber, C. & Lodge, M. (2006). Motivated skepticism in the evaluation of political beliefs. *American Journal of Political Science*, 50: 755-69.
- Tanesini, A. (2016a). "Calm down, dear": Intellectual arrogance, silencing and ignorance. *Aristotelian Society Supplementary Volume*, 90(1): 71-92.
- Tanesini, A. (2016b). Teaching virtue: Changing attitudes. Logos and Episteme, 7(4): 503-27.
- Tracy, J., Cheng, J., Robins, R. & Trzesniewski, K. (2009). Authentic and hubristic pride: The affective core of self-esteem and narcissism. *Self and Identity*, 8(2-3): 196-213.
- Van Bavel, J. & Pereira, A. (2018). The partisan brain: An identity-based model of political belief. *Trends in Cognitive Sciences*.
- West, R. & Stanovich, K. (2008). On the failure of cognitive ability to predict myside and one-sided thinking biases. *Thinking and Reasoning*, 14(2): 129-67.
- Westen, D., Blagov, P., Harenski, K., Kilts, C., & Hamann, S. (2006). Neural bases of motivated reasoning: An fMRI study of emotional constraints on partisan political judgment in the 2004 U.S. Presidential election. *Journal of Cognitive Neuroscience*, 18: 1947-58.
- Whitcomb, D., Battaly, H., Baehr, J., & Howard-Snyder, D. (2017). Intellectual humility: Owning our limitations. *Philosophy and Phenomenological Research*, 94(3): 509-39.
- Wilson, A. (2016). Modesty as kindness. *Ratio*, 29(1): 73-88.
- Wolfe, C. & Britt, M. (2008). The locus of myside bias in written argumentation. *Thinking & Reasoning*, 14: 1-27.
- Zagzebski, Linda, 2012, *Epistemic Authority: A Theory of Trust, Authority, and Autonomy in Belief*, New York: Oxford University Press.
- Zollman, K. (2013). Network epistemology: Communication in epistemic communities. *Philosophy Compass*, 8: 15-27.