An Interdisciplinary Methodology for Studying Collective Intellectual Character Traits

*ABSTRACT*: This chapter describes an interdisciplinary methodology for studying particular collective intellectual character traits. The first step in this methodology is to develop a conceptualization of the target traits. Toward this end, the chapter proposes general accounts of what collective intellectual character traits, virtues, and vices are and illustrates how these accounts can guide the work of conceptualizing particular collective intellectual character traits. An important point made is that traits may be intellectual virtues or vices for some groups but not for others, because whether a trait is a virtue or vice of a group depends upon the nature of that group. Once the target traits have been conceptualized, they can then be operationalized for empirical study. The chapter proposes that one fruitful approach to operationalizing collective intellectual character traits will follow the established methodology of using a direct consensus model of the kind commonly employed in studying organizational climates. This kind of model has been used in some studies of organizational virtuousness, but it has not yet been used to study collective intellectual character traits. By utilizing such a methodology, guided by a conceptualization of target character traits sensitive to the natures of the groups being studied, researchers can obtain measures of these groups’ characters, and can study the relationships between their target character traits and other variables significant for these groups, their members, and non-members with whom the groups interact.

This chapter will describe an interdisciplinary methodology for studying collective intellectual character traits. The methodology described—especially its empirical component—is not the only possible or potentially valuable methodology for studying collective intellectual character. Nor will I argue that it is superior to other methodologies, though it should be clear from the chapter that this approach does have the benefit of being rather simple. The main aim of the chapter is the more modest one of articulating what is involved in employing this methodology in the hopes that it might be experimented with more widely to see whether it can advance our understanding of collective intellectual character.

 At a very abstract level, the methodology has two main components: a conceptual component and an empirical component. Researchers first conceptualize the collective intellectual character traits of interest. Then, they operationalize these traits and collect and analyze data about particular collectives in order to ascertain the relationships between the traits they have conceptualized and other variables of interest. I begin, accordingly, by describing the conceptualization of particular collective intellectual character traits in Section 1. In Section 2, I explain how collective intellectual character traits can be operationalized and studied using a method akin to that which has been used to study organizational climate and organizational virtuousness.

1. Conceptualizing Collective Intellectual Character Traits

The conceptual component of the proposed interdisciplinary methodology focuses on conceptualizing particular collective intellectual character traits. To conceptualize particular collective intellectual character traits well, researchers need to have an idea of what collective intellectual character traits are more generally. Having an idea of what these are serves both to illuminate the range of traits that might be conceptualized as well as the features of traits of interest that may need explication. So, I will start in this section by addressing the question of what collective intellectual character traits, in general, are.

 The simple answer is that collective intellectual character traits are collective, intellectual, characterological, and trait-like. Each of these components can be explained more fully. I’ll go in reverse order.

 What makes the relevant features traits is that they are unified tendencies to display a wide range of characteristic behaviors under a wide range of characteristic triggering circumstances. The individual personality trait of openness to experience, for example, is a tendency to display openness toward new experiences (McCrae and Costa 1997). People who are highly open to experience tend to notice when opportunities for gaining new experiences arise. And, when they detect an opportunity to have a new experience, they tend to greet the opportunity with positive emotions and judgments and a willingness to try it out. In this way, full-blow traits involve tendencies of emotion, cognition, perception, and volition.

 What makes the traits that are our focus characterological is that they reveal their possessor’s values or motives (cf. Battaly 2015: 19). For a trait to be a character trait, the unified tendencies of the trait must be explained by unifying motives or values. The possessor of the trait tends to engage in these behaviors under the relevant circumstances because they possess the relevant values. If there are traits that do not reveal their possessor’s values in this way, as some philosophers have suggested (cf. Battaly 2017: 678; Miller 2014: 9-18), then these traits wouldn’t be character traits. They wouldn’t reveal who their possessor is in the way that character traits distinctively do.

What makes the character traits that are our focus intellectual is that the motives or values they reveal are intellectual motives or values. There is a wide variety of such motives. Some epistemic agents are motivated to reach decisions quickly and stick to them (Webster and Kruglanski 1994). Others are motivated to secure good intellectual reputations for themselves (Roberts and Wood 2007: 236). Some are motivated to avoid revealing their ignorance (Tanesini 2018). Others are motivated to base their views on the best available evidence. Some are motivated to lead others to share their views (Saucier and Webster 2010). Others are motivated to promote others’ epistemic well-being (Byerly forthcoming). All of these, and many others, are intellectual motivations. When an epistemic agent has a unified tendency to display a wide range of affective, cognitive, perceptive, and volitional behaviors out of motivations of these sorts, they have an intellectual character trait.

Finally, what makes the intellectual character traits collective is that they are possessed by groups (cf. Lahroodi 2019). They are traits that are sensibly attributed to groups, regardless of how the sensibleness of these attributions is best explained. Thus, for example, if a group of educators is highly sensitive to opportunities to enhance students’ epistemic well-being, greets opportunities to improve students’ epistemic well-being with positive emotions and judgments, and tends to make efforts to advance students’ epistemic well-being when opportunities arise, all because they value students’ epistemic well-being, this would be an example of a collective intellectual character trait. To put it all together, collective intellectual character traits are tendencies of groups to display a wide range of affections, cognitions, perceptions, and volitions out of unifying intellectual motivations.

Notably, this account of collective intellectual character traits stands in parallel to an account of intellectual character traits of individual people. According to the latter approach, intellectual character traits of individuals are tendencies of these individuals to display a wide range of affections, cognitions, perceptions, and volitions out of a unifying intellectual motivation (cf. Baehr 2011).[[1]](#footnote-1) An individual educator, for example, might be highly sensitive to opportunities to enhance students’ epistemic well-being, greet opportunities to improve students’ epistemic well-being with positive emotions and judgments, and tend to make efforts to advance students’ epistemic well-being when opportunities arise, all because they value students’ epistemic well-being.

This parallelism between the proposed account of collective intellectual character traits and the foregoing account of intellectual character traits of individuals raises the question of the exact relation between the two—a question that has been a focal point of interest for philosophers working on collective character traits (cf. Lahroodi 2019). When a collective intellectual character trait exists in a group, does it always exist only because the members of the group themselves possess this intellectual character trait? Summativists answer ‘yes’; anti-summativists answer ‘no’.

The trend in philosophical work on collective character has been toward anti-summativism. The main kind of argument given in defense of anti-summativism appeals to cases in which group members tend to behave in a markedly different way in the group context than they would outside of it (see Lahroodi 2019 for a review). In these examples, a group appears to display a character trait while the group members in their private lives appear not to display it, or a group appears not to display a character trait, though its members do appear to display it in their private lives. Often, what plays a key role in these examples are the group’s policies or procedures, whether formal or informal. The group has adopted policies or procedures that regulate their members’ conduct when acting as group members, and these policies and procedures lead the group members to behave differently as group members than they would as private individuals. The group tends to display (or not) a unified range of behaviors because of group values encoded in the group’s policies and procedures, but the individual group members, because they may not endorse these same values equally as private individuals, govern their private conduct differently. This might lead, for example, to racist groups composed of non-racist individuals, or the opposite.

A less well-known argument for anti-summativism is also worth identifying here. This argument focuses on cases in which a group appears to manifest a character trait that just isn’t available as a character trait for individuals, because of differences between groups and individuals (see Byerly and Byerly 2016). The most obvious example of a relevant difference between groups and individuals is that groups have members who may interact in the group’s intellectual activities, whereas individual inquirers do not. As such, if there are any intellectual character traits concerned specifically with the regulation of group member interaction in group intellectual activity, these may be good candidates for distinctive group intellectual character traits that cannot be possessed by individual inquirers.

Two examples of such traits come to mind, but there is ample room for further exploration of this topic. First, one of the key, distinctive group intellectual activities is the distribution of intellectual labor (see Bird 2014). As such, we might think that there are group intellectual character traits focused upon the distribution of intellectual labor. What is involved in distributing intellectual labor virtuously in groups? I don’t have a fully worked-out answer to offer, but presumably any fully worked-out answer will want to include the group’s commitment to distributing intellectual labor in a way that promotes its achievement of group intellectual aims, but that also balances this commitment with a commitment to the intellectual well-being of the group’s members. The group that divides intellectual labor excellently will be skilled in identifying ways that intellectual labor can be divided, skilled in identifying the intellectual strengths and weaknesses of its group members, and skilled in matching its members to fitting portions of the divided group labor (cf. De Bruin 2015). The group will tend to exercise these skills in a way that is governed by motivations to achieve group epistemic goods, and that balances the achievement of these goods with the promotion of epistemic goods for group members.

A second example focuses on the group’s activities in empowering (or disempowering) group members to contribute to group inquiry. To contribute well to group inquiry, group members may need to be provided with access to relevant materials, may need training in task-relevant skills, and may need channels of communication whereby they can appropriately influence group inquiry. A group that is excellent at empowering its members to contribute to group inquiry will be attentive to the needs of its group members and motivated to meet these needs so as to advance group inquiry.

Both of these arguments for anti-summativism contain an important lesson for the project of operationalizing collective intellectual character. They both teach us that it will not always work to operationalize a group’s possession of an intellectual character trait as a summation of group members’ individual possession of this trait. We can’t always just assess whether the group members privately possess the trait of interest, and then reliably draw a conclusion on this basis about the extent to which the group possesses it. In some cases, this will not work because, while both the group and its members can possess the trait, there is divergence between the group’s possession of it and the members’ possession of it. In other cases, this will not work because only the group and not its members can possess the trait.

So far, I have only offered an account of what collective intellectual character traits are. But it will also be instructive to consider what makes a collective intellectual character trait a virtue or a vice, or something in between. Roughly speaking, the virtues are the character traits that surpass a certain threshold of goodness, while the vices are the character traits that exceed a certain threshold of badness, and character traits between these thresholds are “mixed traits” (Miller 2014). The question here, though, is what the relevant sort of goodness or badness consists in when it comes to collective intellectual character traits. What sort of goodness is it that contributes toward making a collective intellectual character trait a virtue? What sort of badness is it that contributes toward making it a vice?

In the case of virtues and vices of individual people, there is a widely accepted answer to this question. What makes a character trait of an individual person a virtue is that it makes them better as a person; what makes it a vice is that it makes them worse as a person (cf. Battaly 2015: 5). We might debate exactly what it is to become better or worse as a person, but at least this much is commonly agreed.

Yet, it does not seem that this answer to the question transfers very well from the case of individual people to the case of groups. That is, it doesn’t seem that the best approach to explaining what makes a collective trait a virtue is that it makes the group that possesses it better as a person. It may be that groups are sometimes appropriately treated as persons, at least for legal purposes. But, even still, it seems that the improving groups as persons is not what makes a collective trait a virtue. When we evaluate the characters of individual people, we do so with reference to the kind, person. We use our evaluations of their characters to judge how good or bad a person they are. But, when we evaluate the characters of groups, we don’t do so primarily with reference to the kind, person. We don’t use our evaluations of their characters primarily to judge how good or bad a person the group is. Instead, we use these evaluations to judge how good or bad they are in another respect.

This other respect isn’t just their goodness or badness as a generic group, either. We don’t primarily use our evaluations of the characters of groups to inform our judgments of how good they are as a generic group any more than we use them to judge how good they are as persons. The reason for this is that there are very different kinds of groups. While there may be some qualities of character that would make just any group better as a group regardless of the kind of group that it is, many of the qualities of character that we care about in groups are not like this. Instead, they are qualities that make a group better as the particular kind of group that it is, and not merely better as a group in general or better as a person.

Thus, the kind of goodness that is relevant to collective virtues, including collective intellectual virtues, would seem to be of this sort (cf. Byerly and Byerly 2019). What makes a collective intellectual character trait a virtue is that it makes the group that possesses it better as the kind of group that it is. Likewise, what makes a collective intellectual character trait a vice is that it makes the group that possesses it worse as the kind of group that it is. This observation has important implications for studying collective intellectual virtues and vices. There may be different traits that are collective intellectual virtues or vices for different groups. A trait that is a collective intellectual virtue or vice for one group may not be a collective intellectual virtue or vice for other groups. Whether a trait is a virtue or vice for a group depends upon what sort of group it is, and whether possessing this trait makes it better or worse as that kind of group.

As a simple illustration, we might compare two different institutions of higher education with differing missions. One places a high priority on staff research with comparatively lower priority on teaching undergraduate students, and the other places a high priority on teaching undergraduate students and almost no priority on staff research. There are in fact many institutions of higher education that differ from one another in precisely these respects (Cummings and Shin 2014). The first we might call a research-focused institution, and the second a teaching-focused institution. Plausibly, they are different kinds of institution, and different collective intellectual virtues will make them better or worse as the kinds of institutions they are. The kind of collective intellectual character trait focused on fostering students’ intellectual well-being that we briefly described earlier will be very important for the second institution, but comparatively less important for the first institution. There may even be sub-groups within the first institution where this trait would not be a virtue at all, as these sub-groups may be devoted exclusively to research. The collective intellectual character traits that would be virtues for such a research-only subgroup would differ significantly from those that would be virtues for the teaching-focused institution.

Differences of this sort can be even more dramatic. After all, despite their differences, the imagined institutions in the previous example are still both institutions of higher education. As such, there may still be quite a bit of overlap between the traits that would be collective intellectual virtues for them. Yet, we could also contrast these institutions with other institutions that are even more different from them. For example, we might consider which traits would be intellectual virtues for a troupe of comedians, or for a religious congregation. A witty tendency to detect, appreciate, and satirize each other’s vulnerabilities may be a collective intellectual virtue for the comedy troupe but not the other groups; and a tendency to prioritize remembrance of a certain foundational religious message may be a collective intellectual virtue of the religious congregation but not the other groups. Very different traits make these groups better groups of their kinds, because the groups are of very different kinds.

 In conceptualizing collective intellectual character traits, virtues, and vices in the way proposed, I have attempted to be fairly ecumenical. I have only offered some basic parameters for thinking about what these traits, virtues, and vices are. There are many details I have left unspecified. Researchers may disagree, for example, about whether all traits are character traits. They may disagree about the precise elements that constitute character traits, virtues, or vices. They may disagree about what makes a motive an intellectual motive. They may disagree about how best to sort groups into different kinds. Even still, despite the possibility for disagreement about these details, the conception of collective intellectual character traits, virtues, and vices developed here should be agreeable to many researchers.

These conceptualizations should also be sufficient to provide important practical guidance for the project of conceptualizing particular collective intellectual character traits. In conceptualizing particular collective intellectual character traits, we should be guided by an understanding of the kinds of collectives we are interested in studying, and how different character traits would influence their quality as the kinds of groups they are. Guided by a conception of the nature of these groups, we can hypothesize about specific intellectual motivations that could unite tendencies of these groups to display a wide range of emotions, cognitions, perceptions, and volitions. And we can identify particular patterns of emotion, cognition, perception, and volition that would be characteristic of these unifying motivations. In this way, we would arrive at a fairly detailed and well-developed conceptualization of a particular collective intellectual character trait to study. If the hypothesized trait would make the groups in question sufficiently better as the kind of group they are, the trait is a candidate for being a collective intellectual virtue for these groups. If it would make the groups in question sufficiently worse as the kind of group they are, it is a candidate for a collective intellectual vice of these groups.

1. An Empirical Approach to Studying Collective Intellectual Character Traits

Once researchers have developed a conceptualization of a particular collective intellectual character trait, they may wish to study the role this trait plays in particular groups. They may be interested, for example, in questions about how relevant groups that possess this trait in larger measure differ from relevant groups that possess it in lesser measure. They may be interested in antecedents of the trait—what might lead a group to be more strongly characterized by it or more weakly characterized by it. They may be interested in consequences of the trait—which other features of the group and of other entities that interact with the group may be impacted by the presence of absence of the trait. For example, researchers might take an interest in what leads research teams to divide intellectual labor well, and how teams’ tendencies to divide intellectual labor well influence the group’s performance and features of the well-being of its members and of other individuals and groups with which the group interacts.

 In this section, I will outline a methodology for conducting this kind of empirical study of collective intellectual character traits. The methodology is one that has already been employed fruitfully in the study of various “climates” of organizations. It has also been used to study various dimensions of virtuousness in organizations. The purpose of describing it here, then, is not to champion something entirely novel. It is instead to help advance wider understanding of the method and, combined with the work of the previous section, to illuminate how it might be used in the study of collective intellectual character in particular.

In many respects, the methodology mirrors the common methodology of using self-report questionnaires to study the character traits of individuals—as, for example, in the case of the widely used Values In Action Inventory of Character Strengths (Peterson and Seligman 2004). In using self-report questionnaires to measure the character traits of individuals, researchers ask individuals to respond to items about their own typical patterns of emotion, cognition, perception, and volition; their responses are assigned consistent mathematical values; and a score can be computed for each respondent for the trait in question. The score represents how “high” or “low” this individual is with respect to the focal character trait.

Items in the questionnaire reflect the researchers’ conceptualisation of the character trait in question. The items used are usually selected through a process that involves drafting a large original pool of items and narrowing this item pool through the use of statistical techniques such as exploratory and confirmatory factor analysis. Often, self-report questionnaires produced through this type of method will include between four and fifteen items per trait. Ideally, the items included in a final questionnaire exhibit strong properties of reliability, such as a high Cronbach’s alpha, high item-scale correlations, and high test-retest correlations. Also ideally, evidence for the questionnaire’s validity can be obtained from its convergence with other measures to which researchers would expect it to be similar, or from its divergence from measures from which they would expect it to differ. Researchers can compare the scores of individuals on the questionnaire with other variables of interest, such as participants’ well-being or health. They can study the effectiveness of interventions designed to enhance the presence of the relevant character traits, and they can conduct longitudinal studies examining how changes in an individual’s possession of a trait impacts other variables of interest. Introductory texts such as (Furr 2011) describe the steps of these processes in detail.

It is worth observing here that some interdisciplinary research of this kind has been conducted which focuses specifically on intellectual character traits of individuals as conceptualized above. A good example of this is the research on intellectual humility first reported in (Haggard et al 2018). In this work, a new scale was developed for measuring intellectual humility that was explicitly guided by the conceptualization of intellectual humility defended by a group of philosophers (Whitcomb et al 2017). The philosophers had developed a detailed conception of the nature of virtuous intellectual humility in accordance with the above conception of intellectual virtues, which allowed for “specific predictions about the kinds of behaviors, motivations, and feelings that an intellectually humble person would demonstrate” (Haggard et al 2018: 185). A team of philosophers and psychologists used this conceptualization to guide their work as they drafted a large pool of items to measure intellectual humility, and then used exploratory and confirmatory factor analysis to create a shortened, three-factor scale to measure it, and sought evidence of the reliability and validity of the new scale. The final scale included items representing limitations owning (e.g., “When someone points out a mistake in my thinking, I am quick to admit that I was wrong”), love of learning (e.g., “When I don’t understand something, I try hard to figure it out”), and appropriate discomfort with intellectual limitations (e.g., “I tend to get defensive about my intellectual limitations and weaknesses”, reverse scored). In subsequent research, this kind of virtuous intellectual humility has been found to be associated with possessing more general knowledge, and with being more open-minded, curious, and reflective (Krumrei-Mancuso et al 2020).

 To follow a similar model in studying the character traits of groups, researchers would need for participants to complete questionnaires about the typical patterns of emotion, cognition, perception, and volition of groups of interest. The items used in such questionnaires would be about the patterns of behavior of the group and not of the individual completing the questionnaire. Researchers would need to assign mathematical values to the possible responses to the questionnaire in a consistent manner. A common approach used in research on individual character traits that could be replicated here would employ a Likert-scale anchored by “strongly disagree”/ “strongly agree” or “very much unlike us” / “very much like us”. These mathematical values could be used in at least two different ways for research.

First, researchers can study the relationships between individual participants’ perceptions of group character traits and other variables of interest. Here it is each individual participant’s evaluations of the group that are compared to other variables. This approach does not require that participants in a study are members of the same group. Research of this kind can reveal ways in which individuals’ perceptions of the collective intellectual character traits of groups of certain kinds are related to other variables of interest. For example, this kind of research could address how employees’ perceptions of the intellectual character traits of their organizations are related to their own motivations or behaviors at work.

Second, researchers can aggregate the responses of multiple participants who are members of the same group using a direct consensus model (Chan 1998), and compare these aggregated values to variables of interest. In this case, the aggregated responses of multiple group members are used to determine a score for the group itself, and it is this group score that is then compared with other variables. Here it is the shared perception of group members that is in focus. This shared perception itself serves as a measure of the group’s character, in roughly the same way that an individual’s perception of their character serves as a measure of their character in the case of individual self-reports. This kind of research can address questions about how groups’ intellectual character traits are related to other variables of interest. For example, it can address how changes to a group’s policies affect the group’s intellectual character, and it can address how groups’ intellectual character traits are related to group performance.

Items included in questionnaires of this kind should reflect researchers’ conceptualisation of the focal collective intellectual character traits. Ideally, the items included in a final questionnaire would be determined through a process that involves drafting a large original pool of items and narrowing this item pool through the use of statistical techniques such as factor analysis. Ideally, the items included in the final questionnaire would exhibit strong properties of reliability, such as a high Cronbach’s alpha, high item-scale correlations, and high test-retest correlations. In research of the second kind just described, researchers will want to attend to the extent to which group members converge in sharing a perception of the group. There are common statistical approaches to measuring this kind of inter-rater agreement and reliability, though researchers disagree about whether there is a necessary level of sharedness in perceptions for these perceptions to represent useful data (LeBreton and Senter 2008). In addition to these properties of reliability, researchers would obtain evidence of convergent or divergent validity for the questionnaire by comparing scores on it to scores on other constructs to which they expect it to be similar or different.

With this kind of valid and reliable research instrument available, researchers could then study the relationships between collective intellectual character traits and other variables of interest, such as outcomes pertaining to group performance or group member experiences. They could attempt to ascertain antecedents of the focal trait and consequences of it. They could conduct intervention studies to determine what might affect the presence or absence of the trait in relevant groups. They could conduct longitudinal studies to determine which outcomes are influenced by gains or losses in the trait. Again, this research could study both group members’ perceptions of collective intellectual character traits as well as shared perceptions of these traits, where the latter provide a way of measuring of the group’s own possession of the trait.

 Very much this kind of method has been used to study various types of climate in organizations. The study of organizational climate has been defined as the study of “the shared perceptions of and the meaning attached to the policies, practices, and procedures [group members] experience and the behaviors they observe getting rewarded and that are supported and expected” (Schneider, Erhart, and Macy 2013: 362). Organizational climate research has been conducted since the 1960s, and two general trends in this research are worth noting here.

First, research on organizational climate has come to emphasize the organizational “level of analysis” rather than the individual level of analysis, which was the focus of some early studies. What this means is that it is attributes of the organization, rather than of individual members in the organization, that are of primary focus in the body of research. Items used in questionnaires focus on attributes of the organization, rather than attributes of the individuals who complete the questionnaires. Indeed, as Schneider and colleagues put it, “Perhaps the major outcome of this area of research for psychology has been the acceptance of a level of theory and data other than the individual as relevant and important in organizational psychological research and practice” (ibid: 369). This focus on the group level of analysis is obviously complementary to the focus on the group level proposed here in the study of collective intellectual character.

Second, research on organizational climate has trended toward study of “focused climates” rather than “molar climate” (ibid: 365f). Rather than studying organization climate in general, researchers have come to focus on more specific organizational climates that can be connected meaningfully to specific organizational processes or outcomes. Thus, for example, significant scholarly literatures have grown up around safety climate, service climate, diversity climate, and justice climate (Naumann and Bennett 2000). Research has found that these climate features of organizations are indeed related in statistically significant ways to other variables of interest. For example, higher service climate is predictive of higher customer satisfaction (Schneider et al 2009), higher safety climate is predictive of fewer accidents and a higher percentage of accidents being reported (Probst et al 2008), and more supportive diversity climate predicts lower gaps in performance between racial/ethnic groups (McKay et al 2008). These findings not only provide support for the validity of the measures being used to study these particular organizational climates, but they reveal the importance of these organizational climates for the relevant organizations.

 Notably, research on organizational climate is not explicitly formulated in terms of organizational character, whether virtuous or vicious or mixed. However, in the growing area of positive organization scholarship, researchers have attempted to study organizational character explicitly, and they have done so using a methodology very similar to that used in climate research. Kim Cameron is one of the leading researchers in this growing area of research, which he describes as being at its “toddler stage” of development (2017: 430). I’ll describe two illustrative examples of research on collective character that he has conducted in collaboration with others using these methods.

The first example illustrates the first approach identified above, where researchers examine the relationships between individuals’ perceptions of collective character and other variables of interest. Cameron and colleagues take this approach in their (2004), which examines the relationships between perceived organizational virtuousness and organizational performance. Employees from 18 organizations participated in research in which they were asked about the virtuousness of their organizations. They responded to a pool of 60 items created by researchers with expertise in positive organizational scholarship. Researchers used exploratory and confirmatory factor analysis to determine a factorial structure for these items and to create a final, fifteen-item questionnaire. It contained five subscales representing organizational forgiveness, trust, integrity, optimism, and compassion. Sample items included “Acts of compassion are common here” for compassion, and “Honesty and trustworthiness are hallmarks of this organization” for integrity. Researchers found that perceived virtuousness was a significant predictor of perceived organizational performance, which was itself highly correlated with objective indicators of performance level. In other words, employees who perceived their organizations to be more virtuous also perceived their organizations to have performed better, and the accuracy of their perceptions of organizational performance had independent support.

The second example illustrates the second approach identified above, where researchers use aggregated responses of group members as a measure of collective character traits. Cameron and colleagues take this approach in their (2011), which reports longitudinal studies with financial service units and nursing units focused on the link between virtuousness at the organizational level and organizational effectiveness. Researchers again created a new instrument for measuring organizational virtue, as none had been produced at this time for this kind of study. They drafted an original pool of 114 items assessing what researchers took to be representative virtuous features of organizations. Sample items included “We treat each other with respect” and “We trust one another”. Using exploratory and confirmatory factor analysis with multiple samples across multiple years, researchers found that the 114 items exhibited a six-factor structure, and could be effectively reduced to a 29-item questionnaire with six group-level character-like subscales: Caring and Kindness; Compassionate Support; Forgiveness; Inspiration and Transcendence; Meaning and Meaningfulness; and Respect, Integrity, and Gratitude. They found that increases in unit scores on these constructs predicted improvements in various dimensions of organizational effectiveness. For example, with nursing units, they predicted improvements in employee turnover, patient satisfaction, employee participation, and quality of care.

 These two studies illustrate how the methodology outlined here can be applied to the study of collective character traits, and indeed how it can be done in each of the two ways described above. What I want to propose here is that this same methodology may be fruitfully applied to the study of collective intellectual character traits in particular. It is notable that none of the focal constructs in these two studies is a very good candidate for a collective intellectual virtue. Indeed, I do not know of research in positive organizational scholarship on organizational virtuousness that has had this focus to date. Yet, as the field is still developing, there seems to be a wide open opportunity for expanding research in the area. And one way this research could be expanded is by incorporating a specific focus on collective intellectual character traits.

We might imagine, for example, research being conducted on the collective intellectual humility of groups of intellectual co-laborers. If we make some simplifying assumptions about similarities between the nature and measurement of collective humility and the nature and measurement of individual intellectual humility, then we might be able to shorten our work somewhat. We can simply adapt existing scales of individual intellectual humility, such as the one discussed earlier, to the collective level. Thus, instead of items such as “When someone points out a mistake in my thinking, I am quick to admit that I was wrong” we would have “When someone points out a mistake in our thinking, we are quick to admit that we were wrong”, and instead of “When I don’t understand something, I try hard to figure it out” we would have “When we don’t understand something, we try hard to figure it out”. If these scales were found to have adequate properties of reliability and validity at the collective level, they could be used to study collective intellectual humility in the way suggested here. In various kinds of studies, researchers could assess the relationships between relevant groups’ intellectual humility and other variables of interest.

A few cautionary notes are, however, in order. And with these I close.

First, it is possible that, even in cases where we think that a collective intellectual character trait has an analogue with an existing measurement instrument at the individual level as in the case with intellectual humility, a simple adaptation of the items from this instrument will not produce a reliable and valid measure of the collective trait. One reason for this is that items which perform well in questionnaires designed for individuals may not perform well when adapted for questionnaires about collectives. For instance, “we” statements have ambiguous readings, and participants may not understand them in the same way or in the way researchers intend. A reference to “our” thinking is ambiguous between referring to how each of us thinks individually versus referring to our shared thinking. Items where this kind of ambiguity is salient, such as “When someone points out a mistake in our thinking, we are quick to admit that we were wrong”, may not perform adequately. Consequently, it may be best to develop new research instruments for collective traits, even if many of the candidate items are closely modeled on items used in existing instruments for individual traits.

Second, it is important to remember our earlier lesson that not all collective intellectual character traits have individual analogues. Thus, for at least some collective intellectual character traits that may be of interest to researchers, it won’t be possible to model items on items contained in questionnaires focused on intellectual character traits of individuals. Questionnaires focused on distinctively collective intellectual virtues may have to be developed *de novo*.

Third and finally, it is important to recall another earlier lesson about different traits being appropriate for different kinds of groups. For example, it would seem that intellectual humility, as conceptualized according to the measure discussed in this chapter, would be a candidate for a virtue only for collectives that have learning together as a significant part of their function. This is because intellectual humility, according to this conceptualization, must be motivated by the love of learning. A group that isn’t devoted to learning, even if it is devoted to other intellectual activities such as teaching, may not be a good candidate for being assessed for intellectual humility conceptualized in this way. It may not be an important part of their mission to engage in learning together.

Possibly, we can even learn from cases such as this that different conceptualizations of the character traits we are interested in may be called for. After all, we might think that a group of teachers can display a certain recognizable kind of intellectual humility, even in activities which do not involve them in collaborative learning. We might think they can display intellectual humility in their teaching endeavors, where the relevant kind of humility has to do with a certain kind of service orientation toward learners. If so, we’ll need not just a new measurement instrument for collective intellectual humility, but a new conceptualization of it—one that is fit for the purpose of studying the particular kind of collective we are interested in.

1. Conclusion

There is a wide open opportunity to engage in an interdisciplinary study of collective intellectual character. One approach to doing so involves conceptualizing particular collective intellectual character traits, and then operationalizing them and collecting and analyzing data about them using a methodology familiar from research on organizational climate and organizational virtuousness. This methodology mirrors a well-established methodology used to study character traits of individuals. And, this kind of research on collective intellectual character can benefit from consulting related interdisciplinary research on individual intellectual character. Yet, for a variety of reasons outlined in this chapter, it also requires distinctive work of its own. My hope is that this chapter may prompt researchers to experiment with conducing this distinctive work in order to determine whether we may thereby learn more about collective intellectual character.

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1. This approach is associated with responsibilist or personalist approaches to virtue epistemology, in contrast to reliabilist approaches (see Battaly 2019), which focus on reliable and unreliable cognitive faculties or belief-producing mechanisms. I am sympathetic with the idea, voiced by Battaly and others, that both reliabilist and responsibilist/personalist approaches have valuable contributions to make to our understanding of excellent (and less than excellent) intellectual functioning. This applies both at the individual level and the collective level. Thus, while my focus here is on collective intellectual character traits, I think there is ample room for valuable contributions to collective epistemology that focus on features other than collective character traits. See chapter ???? for discussion of research in collective epistemology of a more reliabilist stripe. [↑](#footnote-ref-1)