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Virtue Intelligence

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The provocative title of this conference is, "Can Virtue Be Measured?" My answer to this question is, "Yes, it can," and I hasten to add, "It should be." I began thinking about whether and how to measure virtue when Jennifer Cole Wright, a psychologist from the College of Charleston, and I were approached to write a popular book on measuring virtue. Alas, that project didn't get anywhere, but I hope that our thinking about this issue might yet bear fruit. Central to our thought is a notion suggested to us by one of our prospective editors. That is the idea of virtue intelligence.[1] In part I, I sketch arguments for the importance of measuring virtue and sketch how the concept of virtue intelligence might help us to approach this venture. In II, I articulate in more detail what virtue intelligence is, and, in III, situate it within philosophical theories of virtue (here I fear I might depart from the views of my collaborator, but I'll leave that to her to judge). In IV, I draw upon the thinking that Jen and I have done (mainly Jen's thought) to briefly discuss what we believe to be some of the most innovative and exciting methodologies for measuring virtue now being explored. Finally, in V, I go out on a limb and suggest something rather different (from which Jen might want to dissociate herself), inspired by my recent reading on the topic of "big data."

I. Why Measure Virtue?: Initial Thoughts

Skeptics might claim that measuring virtue is either unimportant or impossible. Quite frankly, I find it hard to see how anyone could think that measuring virtue is unimportant. Yet some might think it an arcane topic of academic interest only, suitable

for debates amongst professional psychologists and philosophers. But most of us care very much about virtue—we worry about whether we are good people, we look for ways to better ourselves, and we try to raise our children to be honest, trustworthy, and helpful, to have, in a word, good characters. A recent book by Emily Bazelon, *Sticks and Stones: Defeating the Culture of Bullying and Rediscovering the Power of Empathy and Character*, attests to ongoing popular interest in character and the urgent social issues we think creating people of good character can help us to address.[2] The popular interest in good character lends urgency to efforts to measure virtue. We might want to be virtuous and think we know good character when we see it, but how can we reliably cultivate virtue unless we can measure its attainment? Think of programs to inculcate virtue in schools. Without standards and methods of measuring virtue, we cannot know whether we are doing the right thing or whether these programs are successful. Not only having virtue, but also seeking to understand it through empirical means, is of vital importance to how we live our lives, educate our children, and shape our society.

What about those who think that measuring virtue is impossible? Some might think that virtue is ineffable – a kind of special attunement or sensitivity that some people possess that defies capture by empirical means. They could, in part, be right – perhaps there are qualitative aspects of virtue that can't be measured – deeper levels of insight, nuance, and sensitivity that very virtuous people have that elude the grasp of empirical psychology. In such cases we might think of an "art of virtue;" that is, we might conceptualize the lives and actions of the very virtuous along the lines of artistic endeavor, as suggested by the philosopher and novelist Iris Murdoch or the philosopher Friedrich Nietzsche. Virtue so conceived would be resistant to empirical measure.

However, alongside the lives of the very virtuous and of those who deliberately strive to cultivate their virtue, we must place the lives and works of most of us. Scientific measurements of virtue have the most importance and potential impact for those of us who live below the heights. We who struggle to be virtuous – who don't always know how to be kind or generous, who have selfish or foolish tendencies, who act impulsively or without sufficient sensitivity, and whose virtue is imperfect and fragile, need to know how to become virtuous as well as how to sustain and strengthen our virtue. Not "better living through chemistry," but, "more virtuous living through psychology," is what we, the "not very virtuous," need. This is where the concept of virtue intelligence can make a difference to how we think about measuring virtue.

The term 'virtue intelligence' has two very important resonances on which I wish to draw. The first is its parallel to the notions of emotional intelligence and social intelligence. The second is its resemblance to the Aristotelian notion of practical wisdom or *phronēsis*. Let me start with Aristotle to discuss virtue intelligence.

The conception of virtue that I endorse and with which I usually work is neo-Aristotelian. In other words, I think Aristotle got it right by thinking that virtue is an entrenched disposition or character state that is regularly manifested in cross-situationally consistent actions. I also think he was right when he insisted that virtuous action is appropriately motivated and guided by practical wisdom. There is a great deal of nuance to be explored here, which I defer until the next section. For now, I want to note that the term 'virtue intelligence' is meant to capture the notion that virtuous action proceeds from an agent's mental state. Virtue intelligence so conceived is but one element of virtue. Dispositionality is another. Finally, behavior -- actions and other responses -- is

the third element of virtue. Taken together, these three elements are meant to provide different sites for the measurement of virtue: virtue intelligence is an agent's mental state; 'dispositionality' refers to the fact that the mental state does not occur only once or even a few times, but is a regular or enduring feature of someone's personality; and behavior or response is the product of the agent's virtuous disposition. To illustrate, if a college student visits an old folks' home, even regularly, only because she wants to put it on her resumé, she is not being virtuous and her visits do not express virtue. This is because her actions proceed from a selfish mental state. Her behavior could be deemed prosocial, but an Aristotelian would not call it virtuous. If she visits only once, because she feels kindness or compassion for the residents, her visit can be called virtuous, but one visit is not enough for us to attribute to her a kind or compassionate disposition. If she visits over an extended period of time (and just how long is a matter of dispute), and does so because she is appropriately motivated, then we can call her virtuous.

Aristotle's conception of virtue is robust and might be thought to defy empirical measurement. Yet I think the notion of virtue intelligence could be helpful to psychologists in finding ways to measure the inner states so central to the Aristotelian conception. Without those enduring inner states, we can't be said to be virtuous. This approach underscores the notion that virtue is not primarily about how we act (though that is important), but about who we are – the kinds of people we are. The notion of 'character' expresses this point: who we are makes all the difference to how we live.

So Jen and I offer the notion of virtue intelligence as a "way into" the complexities of trying to measure virtue in the robust Aristotelian sense. There are three advantages of using the Aristotelian conception as the focal point of virtue measurement.

First, Aristotelian virtue ethics predominates on the contemporary philosophical scene. Most philosophers working in virtue ethics today endorse this conception or something very close to it. Second, the conception is complex, and if it can be measured, perhaps less robust conceptions can be measured also. Finally, the Aristotelian conception can be broken down into measurable parts. I've suggested three: virtue intelligence, dispostionality, and behavior. As we'll see in the next section, virtue intelligence itself can be further analyzed into components.

Let me speak now to the other important resonance conveyed by the term 'virtue intelligence' – its parallel to the notions of emotional intelligence and social intelligence. Emotional intelligence and social intelligence are constructs that try to "get at" notions widely thought to be ineffable – mastery of, or comfort with, one's emotions and with the complexities of being at home in and navigating social life. Emotional and social intelligence are about being savvy – being 'smart' or 'tuned in' to emotions and social cues, situations, etc. These constructs are useful in enhancing our understanding of emotions and of the nature of our social sensitivities, and how we relate to them or manage them. Being intelligent is a matter of degree. The use of the terms emotional and social 'intelligence' implies that we can do better or worse in our emotional and social lives. Psychological work on these notions informs us of what we need to know to do better. And this psychological work is empirical. Emotional and social intelligence have been identified as *bona fide* constructs and measured. Might we do the same for virtue by testing for a construct called 'virtue intelligence'?

In an earlier book, *Virtue as Social Intelligence*, I explored the social intelligence literature and argued that virtue is a form of social intelligence.[3] At that time, I was not

thinking about the question of virtue measurement. My more recent work with Jen marks something of a shift. For the time being, I remain agnostic on the question of whether virtue is a form of social intelligence or whether virtue intelligence is a construct separate from social intelligence. What I wish to suggest and explore, however, is whether thinking of the inner state component of virtue as virtue intelligence, that is, in ways that parallel social and emotional intelligence, can facilitate virtue measurement. Let's now turn to a more detailed account of virtue intelligence.

II. The Construct of Virtue Intelligence

The explanation of virtue intelligence advanced here should sound familiar, as it's essentially "read off" the description of the mental state of the Aristotelian virtuous agent, with some modifications from my work that I regard as compatible with Aristotelianism. Virtue intelligence is the *sine qua non* of virtuous action and response. Without it, a person cannot be virtuous. It consists of a cluster of separate, yet well integrated capacities: for perception, reasoning and deliberation, judgment, choice, motivation, and affective response. It consists of both cognitive and affective elements functioning together, yet, in my view, the motivational components shape the cognitive in ways that are essential for virtue. An example will illustrate how these capacities work together, as well as the importance of motivation for shaping virtue.

Sarah and Kate have been good friends for several years. Sarah cares about Kate very much, and Kate, about Sarah. Through no fault of her own, Kate suddenly loses her job, and finds her savings inadequate to see her through her financial difficulties. Kate, being a rather proud person, is loath to apply for government assistance, preferring instead to look for other work. Yet none is to be had, and the weeks wear on.

Throughout this time, Sarah has been providing emotional support, a compassionate ear, encouragement in the search for work, etc. In short, Sarah has been a good friend to Kate. Although a cluster of virtues comes into play in considering Sarah's response to Kate, the one I want to focus on is generosity.[4] Should Sarah make an offer of financial assistance to Kate? Would doing so be truly generous? What can we learn about virtue intelligence from considering the questions this scenario raises?

Let's consider the role of perception, or what Aristotle calls *aisthesis*, in virtue intelligence. Sarah must first, of course, notice or perceive that Kate is in financial difficulty. But her perceptions must be finely tuned to Kate's situation. Not only is Kate financially hurting, but her inability to find work and limited savings must also be sources of emotional distress, worry, anxiety, and so on. Perhaps being unable to find work is undermining her confidence in her abilities. Though Kate realizes, cognitively, that her failure to find work is through no fault of her own, still, nagging doubts about her qualifications recur. Sarah, as a good friend and someone who is concerned about Kate's welfare, should notice Kate's emotional strain. She should pick up on subtle cues that Kate might display, such as a tone of voice, a facial expression, or other behavioral nuances. In short, the perceptual component of virtue intelligence is or incorporates forms of social or emotional intelligence, insofar as it includes capacities for having or obtaining a finely tuned awareness of others' emotional states, as conveyed through behavioral signs.

I have explored this aspect of virtue intelligence in some detail in my earlier book and won't belabor these points here. However, it's worth noting that one's capacities for social perception of the kind described here are a matter of degree. We can be better or

worse at nuanced perception. Two broad kinds of impediments can prevent one from having the perceptual acuity that is integral to virtue intelligence. The first is psycho-physical: some people, such as the autistic and sufferers of Asberger's Syndrome, are prevented by psycho-physical deficiencies from having the full capacity to perceive and interpret social cues. The second barrier is human frailty. Here ignorance, whether willful or otherwise, of the social norms that allow one to pick up on and interpret social cues, is a prime offender. Willful ignorance can take a variety of forms, and occurs when people simply ignore or don't care about what is happening around them. Consider Ken, an acquaintance of Kate's. Ken might be vaguely aware that something is the matter with Kate, but is too self-absorbed to take much notice. Consequently, his perceptions of Kate will not be nearly sensitive enough to count as parts of virtue intelligence. Because of his perceptual failure, he will be unable to respond to Kate in anything like a virtuous way. But the situation could be even worse with Ken. Perhaps he is so self-centered that he has never even bothered to learn the social norms governing the interpretation of behavioral cues. If so, perhaps Ken has seen tell-tale signs of Kate's malaise, such as traces of worry, anxiety, or frustration, and not known how to interpret or "read" them. Ultimately, though, this ignorance stems from the fact that Ken simply does not care enough about other people to learn basic norms of social interaction. This, we hope, is an extreme case, but is, nonetheless, a failure of virtue.

I cannot resist digressing for a moment to note that the ability to interpret and respond to social cues, so essential for virtue intelligence, shows why a famous objection to Aristotelian virtue ethics, the "self-centeredness" objection, misses its mark. According to this objection, Aristotelian virtue ethics is misconceived because it urges us

to be self-centered – to care about our own virtue, instead of focusing on the needs of others. If the foregoing remarks are correct, we cannot be virtuous unless we are able to see, understand, and respond to the needs of others, and we cannot have these abilities without social intelligence. Virtue is deeply social. Other-regardingness is built into its very nature. Someone who cares only or even primarily about her own virtue is not truly virtuous; she lacks the concern for others that is at the heart of virtuous dispositions.[5]

Let's return to Kate and Sarah and the question of Sarah's generosity. We've seen that perception of a deeply social nature is integral to virtue intelligence. A bevy of cognitive capacities, too, are intrinsic to it. In the next section I will discuss the roles virtue intelligence plays in habitual or "second nature" virtuous responses, which do not require overt deliberation on the part of the virtuous agent. For now, let's look more closely at the kinds of conscious deliberation that are characteristic of virtue intelligence.

Earlier I mentioned the need for reasoning and deliberation, judgment, and choice. These are all crucial cognitive elements that go into virtuous response. In other words, a virtuous response will be thoughtful. So Sarah must give some thought to how best to display her generosity toward Kate. She must weigh the possibility, for example, that an offer of financial assistance could wound Kate's pride, or that offering assistance in a certain manner could have this effect. She must consider whether a loan or a gift would be appropriate. If a loan, should she charge some token amount of interest? Should she set a time limit for repayment? She must consider whether attempting to find Kate work would be a better option than either a loan or a gift. Perhaps she should simply express sympathy and solidarity, and ask how she can help, choosing the appropriate time and place to have this conversation. In all of this, Sarah needs to make informed judgments

about Kate's mental state and how she is likely to respond to overtures of assistance. Sarah must deliberate carefully, make judgments about the possible consequences of a variety of interventions available to her, and choose well how she responds to Kate's situation.

Perhaps all of these remarks about perception and cognition are straightforward and obvious, but there is one aspect of virtue intelligence that cannot be overlooked, nor, in my view, stressed enough. That is the role that virtuous motivation plays in shaping both the perceptions and the cognitions of the virtuous agent. Sarah, as a friend of Kate's, sees her plight with a kind, compassionate, and generous eye, unlike Ken, who does not. (This is a point that was beautifully made by the late Peter Goldie in his book *On Personality*).[6] The feeling or *love* that Sarah has for Kate informs how she sees Kate, how she thinks about Kate, and how she plans her response to Kate. Sarah would not see or think about Kate as she does if she did not feel a certain way about Kate – if she did not want to be a certain kind of person in her relationship with Kate. Central to, and indeed, driving and informing virtue intelligence, then, are certain kinds of affective motivations, certain ways of wanting to be and live in the world and be and live with other people that shape how we see, think, and respond -- that form who we are and how we live. These affective motivations and their cognitive and perceptual accompaniments go by certain names: generosity, kindness, compassion, courage, and so on.[7] They are the Aristotelian virtues, and, I would suggest, the virtues of many other cultures and traditions, such as *ren* or benevolence in Confucianism, compassion in Buddhism, and Ubuntu in South African traditions. In the Aristotelian tradition, the affective motivations that shape the virtues go hand in glove with practical wisdom, or *phronēsis*.

In other words, the motivational elements of the virtues, the desire to be kind or generous, for example, shape and are shaped by the practical deliberations one takes in one's efforts to succeed in being kind, generous, and so on. So Sarah's desire to be truly generous toward Kate will motivate her to reason well in her efforts to do so, and her reasoning will deepen her desire, making it more sophisticated and nuanced, more rationally informed, more finely calibrated to Kate's situation, indeed, a more seasoned and mature element of virtue.

Let's pause to recap the construct I've described as "virtue intelligence." It consists of a kind of affective motivation characteristic of the virtues, such as generosity, kindness, courage, compassion, and so on. These motivations shape the deeply social perceptions and cognitions that are also integral to virtue intelligence. Lacking these motivations, we could not say that someone genuinely has virtue intelligence, or, more broadly, virtue. One can be better or worse at virtue intelligence. Virtue intelligence is sometimes impaired by psycho-physical deficiencies, as occurs in cases of autism and Asberger's sufferers. Alternatively, deficiencies in virtue intelligence could result from human frailty, including willful factors such as selfishness or culpable ignorance. Virtue intelligence is deeply social: we learn how to perceive and interpret social cues through socialization. We also learn how to deliberate, judge, and choose by being taught how to do these things. Most importantly, perhaps, we learn how to structure and manage our motivations and feelings through being taught, by our parents and others, how to do so. Being taught to be virtuous and to have and develop virtue intelligence is part and parcel of being taught how to live well. As we grow in virtue intelligence, there should be a natural interplay between motivations, perceptions, and cognitions, with each element

influencing the others. This is not meant to imply that we are immune from setbacks. Surely, we can and do make mistakes, but the virtuously intelligent person seeks to learn from these mishaps and to use them in the service of doing better next time. These themes will be pursued more fully in the next part of my talk.

III. Virtue Intelligence in Philosophical Perspective

So what should Sarah do about Kate? We left this question unanswered. To answer it, we need to look more fully at Sarah's life, at her strengths and weaknesses, at her goals and attitudes, at who she is and how she lives. To do this, we need to situate virtue intelligence more fully within a philosophical perspective, and introduce other notions to supplement it, such as habituation, nonconscious mental processing, and dispositionality.

Virtue intelligence is at home in a broadly Aristotelian philosophical context. But there are different interpreters of Aristotle. There are two on whose views I want to draw to enrich our thinking about virtue intelligence: Philippa Foot and John McDowell. Let us start with Foot.

In one very insightful remark, Foot mentions that virtues such as benevolence have a certain effect on how their possessor sees the world.[8] This in itself is a very rich notion. A benevolent person interprets or "reads" the world in a specific way. Instead of viewing a careless comment as a deliberate insult, a benevolent person is inclined to shrug it off, to excuse the one who made it, or explain it away. Her benevolence inclines her not to make too much of it, to give the other the benefit of the doubt. This perceptual and interpretative stance of the benevolent person, I believe, is shaped by her benevolent motivations, by her desire to be benevolent and the influence of this desire on her

perceptions and cognitions. So I believe that Foot's vision of the virtues as expressed in her remark about benevolence supports the interpretation of virtue intelligence offered here.

An extension of Foot's insight is in order. Like all of us, the virtuous person creates to some extent her own *Lebenswelt* or "life-world." A person who is inclined to be kind and friendly will elicit that reaction in others; she will seek (perhaps nonconsciously) situations in which those qualities are in evidence, and her overall outlook and attitude will have the effect of bringing those qualities into contexts where they might be lacking. Instead of reacting with irritation to someone who drops papers in her path, she will kindly help to pick them up (whether she finds a dime or not). Instead of walking past a colleague who, at a meeting, does not have a dinner partner, she will invite that person to join her group. And so on. In other words, virtue affects not only how one processes incoming information, but also shapes one's actions and responses, and, more subtly, the "climate" or "atmosphere" that one brings to bear in one's interactions.

We can see how this construal of virtue supports the notion, adopted by Foot but also found in Aristotle, that virtues are correctives.[9] They correct our own tendencies to vice, but they can also correct the possible lapses of others. Our benevolent person, being imperfectly benevolent, might be tempted to take offense at a clumsy comment made by another. Yet, if her benevolence is strong, she is able to overcome that temptation. If she brings benevolence into a situation in which it is not in evidence, or worse, one very near to devolving into tension or hostility, her attitude, noted and appreciated by others, could prevent them from lapsing into hurtful or offensive behavior. Think of how a calmly

spoken word, uttered in a meeting at which tempers are fraying, can soothe ruffled feathers.

These reflections on aspects of Foot's conception of virtue signal the complexity of virtue intelligence as a feature of individual virtues. However, the kind of virtue described here cannot consist of virtue intelligence alone. It must be deep-seated and enduring – more than an occurrent mental state. Virtue must be dispositional.

Aristotle argues that virtuous dispositions are formed through habituated action, and I've used the notion of goal-dependent automaticity to explain how this might occur.[10] My account, in short, goes like this. Suppose that a person has a virtue-relevant goal, such as being a good parent. Her pursuit of this goal leads her repeatedly to perform actions expressing virtues that good parents should have, such as kindness, fairness, patience, and generosity. These actions can become habituated in the following way. Her goal is likely to be repeatedly but nonconsciously activated in response to external cues or triggers of which she might not be consciously aware, such as the expression, gesture, or sound of a child in need. These cues activate her goal, which is not always at the forefront of her conscious awareness, yet is chronically accessible. She acts in the service of her goal without having consciously to deliberate, and her actions express virtue. Repeated actions expressing virtue can become habituated over time, and habituated actions eventually form dispositions. The virtuous disposition that she eventually forms, we can hope, will "spill over" into virtuous actions in other kinds of relevantly similar cases – perhaps she will respond kindly to children not her own or to a friend in need, thereby extending her kindness beyond the sphere of parenting. In any event, this is one way in which habits can form virtuous dispositions.

Key to this account is the notion that virtuous dispositions cannot be formed unless some essential elements of virtue intelligence are in place. Indeed, lacking appropriate motivation and perception, one will misperceive or miss occasions for virtuous action, or deliberate about them in the wrong way, or act with inappropriate motives. Habituated actions performed without virtue intelligence will miss the mark of true virtue, and dispositions formed without the guidance of virtue intelligence will not be genuinely virtuous.

A further point is worth making. Nonconscious processing contributes to the habituation of virtue and the formation of virtuous dispositions. As we become habituated into virtue, the need for conscious deliberation every time we act becomes increasingly less acute. Eventually, as our dispositions develop, deepen, and strengthen, virtuous action becomes "second nature."[11] We act virtuously without consciously thinking about it. Virtuous behavior, on this account, results from a complex combination of conscious and nonconscious mental processing. The more habituated into virtue we become, the less we need to rely on conscious deliberation, and the more we are able to nonconsciously process the numerous factors that contribute to virtuous action.

So far we have been considering the factors of virtue intelligence, habituation, dispositionality, and nonconscious processing from the perspective of a single virtue. Character does not consist of a single virtue alone, however, but of a plethora of virtues, each of which should, ideally, cohere with and support the others. In the example of benevolence used a moment ago, it is clear that benevolence is related to generosity,

compassion, and kindness, and perhaps even to courage, if the benevolent person has to face situations in which hostility reigns.

To broaden our perspective on virtue intelligence and continue to explore its affinities with other philosophical views of virtue, let's turn more explicitly to McDowell.[12] I want to draw specifically on two aspects of McDowell's thinking about virtue, and leave one aside. The two on which I draw are his conception of the unity of the virtues and his insight that the virtuous person's conception of her life supplies her with a guide for how to live virtuously.

The idea left aside is his notion that the mental state of the virtuous person is essentially unitary. This is a complex and, to me, somewhat obscure notion. By this McDowell means that the two distinctive elements typically used by philosophers to explain mental states – beliefs and desires – are, in the virtuous person, not two distinct kinds of mental entities, but in fact, one. Philosophers usually explain the difference between beliefs and desires by invoking the idea of "direction of fit." Beliefs are traditionally used by philosophers to suggest a "world-to-mind" direction of fit. True beliefs track the way the world is. Desires, by contrast, are explained by a "mind-to-world" fit. My desires are about the way I want the world to be. I might want a dish of ice cream. My desire suggests a mind to world fit – I want to change the world so as to obtain a dish of ice cream. I might believe something about the world that is relevant to my desire, namely, that there is ice cream in the fridge. My belief, if true, can provide me with the information I need to satisfy my desire. McDowell's view, by contrast, denies a distinction between beliefs and desires in the psychology of the virtuous person. One way of expressing this is to say that McDowell holds that there are "besires," mental

entities that have both directions of fit. There are levels of complexity regarding the nature of besires, if such there be, as well as interpretations of McDowell, that I wish to avoid. Suffice it to say that I do not agree with McDowell about the strongly unitary mental state of the virtuous person, though I think a quite strong unity does indeed hold amongst the beliefs and desires that constitute her virtuous mental state. The virtuous person, in my view, has separable beliefs and desires, but, as I noted earlier, her virtuous desires, that is, her motivations to be and to act in kind, generous, and compassionate ways, shape her thoughts and perceptions. Should her motivations change, her thoughts and perceptions would change also. Though the beliefs and desires of the virtuous person are strongly united, they are not inseparable.

The theme of unity is evident not only in McDowell's notion of the unitary mental state of the virtuous person, but also in his strong conception of the unity of the virtues. Here I do want to draw on some of McDowell's insights, while, again, eschewing some other aspects of his work. For McDowell, virtue is a kind of unified sensitivity or perceptual capacity that enables us to see the world aright. In this, I believe he is influenced by Iris Murdoch, who, in turn, is inspired by Plato. For these thinkers, virtue allows us to perceive or know the good, and the good itself is attractive, having a kind of appeal that draws us to it. So knowledge of the good has an inbuilt motivational component (hence the unitary mental state of the virtuous person). Moreover, for McDowell, virtue is a single, overarching sensitivity that consists of a number of individual sensitivities working in harmony. This, I think, is what he means by the "unity" of the virtues. In the virtuous person, kindness, generosity, courage, justice, and so on, are all parts of a single sensitivity that operate cooperatively. McDowell makes

clear his view that we cannot have one virtue without all the rest – I cannot be adequately sensitive to the requirements of justice without also being sensitive to the courage needed to act justly, and so on.

The unity of virtues so conceived is a strong requirement. We are well aware of some people who seem to excel in one virtue while lacking others. Aside from this point, taken from our experience of virtue in the persons we encounter, I want to distance myself conceptually from McDowell's view that virtue is a single sensitivity. I incline to the view, held by Aristotle, that the virtues are multiple, discrete, separate dispositions. That said, the notion of the unity of virtues captures something important about how virtue functions in the overall personality of the virtuous person. The virtues, whether we conceive of them as parts of a single sensitivity or as separate dispositions, are guided by reason, which functions as a way of "checking and balancing" the operation of the individual virtues in the psychological economy of the virtuous agent. Using reason, the virtuous person knows when justice is called for, as opposed to mercy, or when generosity must be tempered with firmness. In other words, reason enables one to adjudicate amongst the virtues in the course of living one's life. Some philosophers, such as Georg von Wright, have thought the ability to use reason as a higher-order regulator of the virtues is itself a virtue, namely, the executive virtue of self-control.[13]

In this complex landscape of virtue, we can discern and describe various levels of intelligence in the virtuous person. There is the intelligence that is intrinsic to each specific virtue. One might say, for example, that benevolence has its own intelligence. That is, when benevolent motivations are called into play, they elicit a train of perceptions and cognitions that factor into the benevolent person's reasoning about what

is to be done in a specific situation that she recognizes as calling for benevolence. I have been speaking about virtue intelligence in these terms – as the kind of intelligence that is integral to each specific virtue. My description of the unity of the virtues conjures a different level of intelligence, one in which reasoning is not specific to, and one might say, contained within, a virtue, but stands outside the virtues, managing them and adjudicating them. Thus there seems to be a second order or higher level of intelligence involved in regulating the operation of various virtues. The virtuous person must be able to "stand outside" the motivations and reasoning intrinsic to each specific virtue, or she will not be able to make judicious decisions about which virtue to act upon should virtues conflict or even overlap.

Moreover, she will not be able to discern when virtue is truly called for and when it isn't. Consider, for example, a case adapted from Adam Smith.[14] Smith describes a case in which we feel sympathy for someone we see being beaten. When we discover that the beating is a just punishment for that person's transgression, Smith believes we should temper our reaction so that our sympathy is checked. In other words, he believes our sympathy should be reasons-responsive. A similar point obtains with respect to the virtues. Upon seeing a person being disciplined, I might react with compassion – I see the scenario as described by Smith, say, and this triggers my compassionate motivation. Yet, my compassion, which includes my desire to be compassionate toward the person I see, as well as any thoughts that follow from it, must be responsive to further information that casts the situation in a different light. I believe that the higher level of intelligence possessed by the virtuous enables us to be reasons-responsive in this way – in ways that

temper our initial virtue-relevant reactions to situations and curtail or check what would otherwise have been inappropriate, but well-intentioned, actions.

How does the virtuous person come to possess this higher-order intelligence? How can she develop it so as to shape and guide the operation of different virtues in her life? For this, McDowell offers the answer: her conception of her own life as a virtuous person provides her with guidance, or, we might say, with an overarching framework within which she is able to work out the requirements of daily living. If one has a conception of oneself as a person who is just or kind or compassionate, who is committed to being a certain kind of person and to upholding certain values in one's life, this provides a set of "anchor points" that aid one in thinking through what needs to be done in specific contexts. What we are exploring now is how one's identity as a virtuous person enables one to guide one's life. If I see myself as a person committed to justice, for example, my initial compassionate reaction to rush to the aid of someone I perceive as the victim of injustice will be tempered when I learn that he is receiving just punishment for having transgressed. I will be responsive to reasons of justice, and this reasons-responsiveness will lead me to readjust my compassionate reaction. I might still feel compassion for the suffering of the individual, but restrain myself from interfering with his punishment in response to the demands of justice. We can see now that how Sarah should respond to Kate depends on the extent to which her generosity is reasons-responsive, that is, is informed by Sarah's higher-order intelligence. This, in turn, is shaped by Sarah's moral identity – by the conception Sarah has of herself as a certain kind of virtuous person. What Sarah should do depends in part on how she sees herself as a virtuous person. We can underscore this point by noting that Sarah's reflections

about Kate proceed from the first-person perspective. Sarah asks herself, “What should *I* do about Kate?” Perhaps, if she is stumped, or in the grips of philosophical theory, she will ask herself, “What would a generous person do about Kate?” But if she asks herself that more abstract question, her answer must ultimately be grounded in the realities of her own life, as well as of Kate’s situation and her relationship with Kate. In the life of the virtuous agent, abstract questions about virtuous action are resolved with first-personal deliberations and answers.

Sarah’s view of herself as virtuous should be tethered to reality – to how Sarah actually is as a virtuous person. (Here I can only mention that Daniel Cervone’s work on knowledge and appraisal mechanisms supplies an empirically informed way of explaining how Sarah might ensure that both her virtue and her self-conception as virtuous are reality-responsive).[15] How she is as a virtuous person is a result of her life history and moral development. Volumes could be said on these points, but to make a long story very short and bring the discussion back to our point of departure, her moral development into virtue begins, but does not end with, virtue intelligence.[16] As children, we are taught by our parents and other caretakers to be kind, generous, compassionate, and courageous – to share our toys, comfort others in need, and stand up to bullies. We are taught the individual virtues and encouraged to want to have them. We are taught to use our own reason in acting in generous, compassionate, and courageous ways – to intelligently adapt our virtuous responses to the situations that confront us. The shape our virtues take depends on the circumstances of our lives, as well as on other factors, such as our temperament. Virtue intelligence, I’ve argued, is at the heart of the possession and successful exercise of the individual virtues. It is also central to the

development of the virtues as dispositions – to the nonconscious processing and habituation of virtue.

Moving beyond the individual virtues, we encounter a higher order of intelligence when we recognize reason as enabling the virtuous person to manage the cluster of virtues she possesses – knowing when to act virtuously or to forbear (e.g., feeling compassion but not acting), recognizing and responding appropriately to the reasons that might favor one virtuous response over another of a different type (e.g., in Sarah's case, patiently waiting for Kate's situation to improve, instead of immediately making a generous offer), and adjudicating virtues when they conflict (e.g., justice vs. mercy). The intelligence needed to navigate these challenges develops as part of a person's life journey. This journey is examined: the virtuous person comes to know herself through thinking about how to act and how to be in the world. She develops a distinctive moral identity – a conception of herself as a person with a certain kind of character – one who is predominantly kind, for example, or sensitive to injustices. None of this occurs in a social vacuum. The virtuous person develops her character and her conception of herself in the company of others – supportive family, friends, and communities.

IV. Measuring Virtue: Paths Yet to be Taken

Where does all of this leave us on virtue measurement? It leaves us in three places. The first is that it fosters an awareness of the complexity of virtue. Behavioral measures by themselves are not enough to ensure that we are measuring truly virtuous action, nor, given participant bias, are self-report measures alone entirely reliable. The cross-correlation of multiple measures must be used in empirical research on virtue. I am all in favor of bringing the array of methods used in psychology to bear on empirical

measurements of virtue – behavioral measures, self-reports, observer-reports, Q sorts, etc. Moreover, as I've stressed here, internal factors, such as motivations, cognitions, and dispositionality, are central components of virtue that psychologists cannot ignore.

Second, there is an urgency involved in "getting it right." Society, by which I mean all of us, have a vested interest in raising people of good character. To do this – to actually raise good, virtuous people – we need to know what virtue is and how to encourage it. But virtue is complex and messy. These facts, however, shouldn't deter psychologists or other social scientists who seek to contribute to virtue measurement. We are at the beginning of what I hope is a new era of exploration in virtue measurement.

Third, virtue intelligence provides a point of entry for measurements of virtue that, eventually, will be sufficiently nuanced and sophisticated to capture much of the complexity of virtue. Yet, as noted earlier, it could well be that some aspects of virtue's complexity, for example, the nuance and depth of virtuous response as expressed by a truly virtuous person, elude empirical measurement. This point notwithstanding, empirical measures can bring us closer to understanding what virtue is, who possesses it, and to what degree.

My collaborator, Jennifer Cole Wright, and I have discussed ways in which virtue could be measured using familiar psychological methods. Though she will discuss these ideas in more detail in her presentation, I would like to mention some of them here.

As Jen will explain, the empirical study of virtue includes measurements of: (a) people's sensitivity to trait-relevant stimuli, whether internal or external; (b) their ability to recognize and generate trait-appropriate responses, whether cognitive, affective, or behavioral; (c) the dispositionality of their sensitivity and ability to recognize and

generate trait-appropriate responses; and (d) the chronic accessibility of trait-oriented values and goals and trait-relevant identity. Jen will discuss operational definitions of these notions and strategies for measuring them. However, it should be clear from the brief mention I make of them here that the measurement of (a) and (b) would provide some evidence of virtue intelligence or indicate its absence. Virtue intelligence is at least partly operationalized through the measurement of people's sensitivities and abilities to recognize and generate trait-appropriate responses. The measurement of (c) and (d), however, takes us well beyond virtue intelligence. Dispositionality takes us into the terrain of virtuous character. Measurements of the chronic accessibility of trait-oriented values and goals and trait-relevant identity take us toward the heart of the conception of the virtuous person sketched here. It opens paths for measuring to what extent people have truly internalized virtue-relevant values and goals and see themselves as people of good character – as people who are kind, generous, and compassionate – not just in the present moment, but at all times and on all occasions when such virtues are required.

Jen and I have also thought about the innovative work in virtue measurement being pursued by psychologist Mattias Mehl and his colleagues. This research uses a device known as the Electronically Activated Recorder (EAR). Pioneered by Mehl and his colleagues, the EAR is a recording device worn voluntarily by participants in research studies. Mehl and his colleagues have used the EAR in numerous experiements.[17] The EAR runs on a personal digital assistant (PDA) or hand-held computer, and is worn attached to the clothing of subjects.[18] Also, an iEAR app that runs on both the iPhone and the iPod touch is available on free download from iTunes. This operating system has an enormous user base and maximizes compatibility across different countries.[19]

Mehl and his colleagues have used the EAR to study virtue. In research funded by The John Templeton Foundation under the auspices of "The Character Project," they have used the EAR to record and analyze virtue-relevant behavior in daily life.[20] The aim of their project is ". . . to shed new light on questions around the existence of moral character by (1) examining the convergence among behavioral, self-report, and informant-report measures of moral character and (2) testing the stability, variability, and changeability of virtuous daily behavior relative to (non-virtuous) neutral and negative daily behavior using a novel, naturalistic observation sampling method."[21] They are supplementing self-report data with other measures, thereby correcting for one of the drawbacks in the use of self-reporting technologies—namely, participant bias. Another possible drawback, the intrusiveness of self-report devices, is also avoided, as Mehl and his colleagues report that users often forget they are wearing the EAR after about two hours.[22]

The database used for their "Character Project" study was four samples: 76 healthy adults, 12 arthritis patients, 52 breast cancer patients, and 50 partners of breast cancer patients.[23] They found that "Naturalistically observed virtuous daily behavior shows substantial temporal stability," and these stability levels are consistent with past research on trait-relevant behavior and with negative and neutral daily behavior.[24]

These results are impressive and promising. However, Jen and I wonder if data provided by the EAR provides a sufficiently nuanced window onto the complexities of virtue. Motive and context affects what counts as virtuous behavior. For example, an individual might say something that appears virtuous, but not be appropriately motivated. I might give you a compliment that appears kind on a recording, but if my motive is

solely to ingratiate myself with you, I am being insincere and not truly kind. My statement does not reflect true virtue, according to Aristotelian-inspired conceptions of virtue. Similarly, context matters in determining whether behavior is truly virtuous, and the nuances of context are not always picked up by recordings made with the EAR. The EAR might record me telling you I'm hungry and asking for food, and record you offering me a cookie. This response might make you appear generous in the sense that you share your food with me, but if you have far more food that you are withholding from me, your gesture might, in fact, be stingy. The background context of your having access to more food than you offer is not captured by the recording, and this makes a difference to how the recorded statement should be interpreted – as expressing virtue or not.

We hope that by introducing the notion of virtue intelligence, as well as by suggesting the importance of virtue-relevant goals, dispositionality, and virtue-relevant identity for virtue measurement, we can move empirical discussions forward by identifying key constituents of virtue. Researchers can then be alerted to look for these elements given the measurement techniques currently on offer, but also to develop new ways of measuring the influence of motivation and context on what looks like virtuous behavior and/or speech that reflects virtuous behavior, but might not, on closer inspection, be virtuous after all. In short, Jen and I believe that use of the EAR is an important step forward, and that future work will yield significant advances in the crucial venture of measuring virtue.

V. Out on a Limb: Can "Big Data" Make a Difference?

Recently I did some reading about "big data."[25] According to that paragon of research insights, Wikipedia, "Big data is the term for a collection of data sets so large and complex that it becomes difficult to process using on-hand database management tools or traditional data processing applications."[26] The authors continue, "Big data usually includes data sets with sizes beyond the ability of commonly used software tools to capture, curate, manage, and process the data within a tolerable elapsed time. Big data sizes are a constantly moving target, as of 2012 ranging from a few dozen terabytes to many petabytes of data in a single data set."[27] Big data has been made possible by the transition from analog to digital technologies. It is now possible to collect and store massive amounts of data from the internet, cellular telephone conversations, text messaging, and other forms of electronic communication. Diagram 1 gives an idea of how the transition from analog to digital information technologies has changed our access to data. As digital technologies continue to evolve, we can expect capacities for data collection, management, and storage to increase.

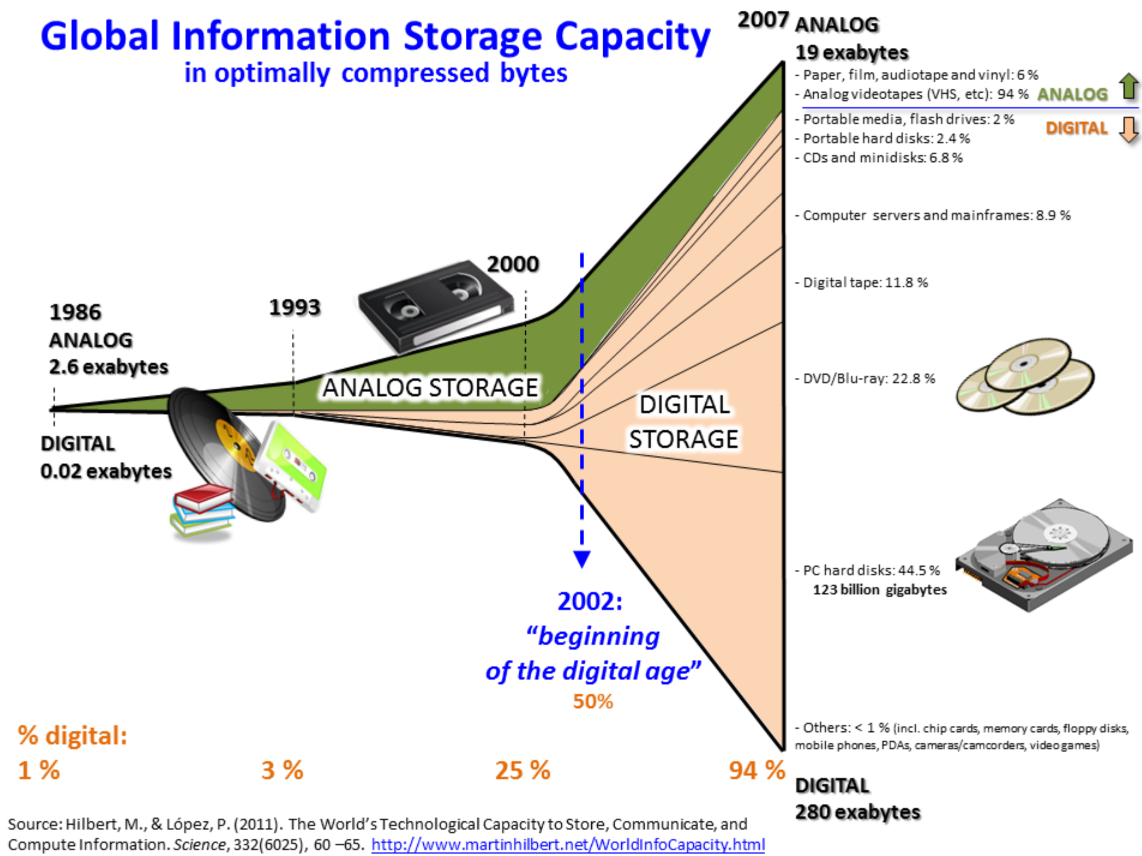

Diagram 1. From Analog to Digital.

Some uses of big data have yielded impressive results. The aforementioned Wikipedia article mentions uses of big data in science, government, international development, financial markets, architecture, and the private sector.[28] One big data feat mentioned there is the decoding of the human genome. Initially it took ten years to do this; using big data the human genome can be decoded in less than a week. Equally if not more impressive was Google's ability to predict with more speed and accuracy than the United States Centers for Disease Control and Prevention (CDC) the outbreak and spread of the H1N1 flu in the United States in 2009.[29] The CDC collected data from doctors and tabulated it once a week. This method was both slow and inaccurate. People could wait for weeks before seeing a doctor, and slow tabulation methods meant delays in accessing

useable data. Google circumvented all of this by using a big data approach. They took the 50 million most common search terms typed by Americans and compared it with CDC data on the spread of flu between 2003 and 2008. They guessed that searches might be aimed at getting flu-relevant information, for example, "medicine for cough and fever." However, this wasn't relevant to them – they didn't know and designed a system that didn't care what the search terms were. The system searched for correlations between the frequency of certain search questions and the flu's spread over time and space. Google processed 450 million different mathematical models in order to ". . . test the search terms, comparing their predictions against actual flu cases from the CDC in 2007 and 2008. … [T]heir software found a combination of 45 search terms that, when used together in a mathematical model, had a strong correlation between their prediction and the official figures nationwide."[30] Like the CDC, Google knew where the flu had spread in 2009, but, unlike the CDC, they knew it in almost real time, not a week or two after the flu had hit.

I will admit to being very impressed by the Google story and by others of the uses of big data. I speculate that a "big data" approach might be useful in empirical studies of virtue. How might this work?

Big data gathered from various sources might prove useful in identifying different populations of potential research subjects – people who, for various reasons, might be interested in virtue. For example, amazon.com has troves of data about book purchases and browsing. Might people who have browsed for books on virtue-relevant topics, such as compassion, hope, or various dimensions of spirituality, be interested in learning about virtue, and perhaps, be predisposed to develop virtue or act virtuously in their lives, or

better, already be virtuous and desire to deepen and strengthen their virtue? Histories of charitable giving are another possible source of information about people who could be interested in virtue. If people have given online to charities that protect animals or the environment, or promote causes such as typhoon relief or the Special Olympics, might those people be predisposed to virtue or already be virtuous -- might they have or want to have compassion for animals, care and stewardship of the environment, or benevolence toward others in need? If they give regularly, does this indicate dispositionality in a virtue – a commitment to compassionate behavior toward animals over time, for example? If people have done searches on specific topics, such as caregiving for relatives suffering from Alzheimer's, could these searches indicate populations in whom the seeds of virtue have taken or might take hold – do these searches suggest a concern for Alzheimer's victims that motivates people to seek further information? Are those motivated to seek further information also possessors of virtue intelligence? Perhaps other search terms could be identified that would uncover further populations who seem to show signs of virtue intelligence.

The general idea is to use the resources of big data to identify populations in which more targeted studies of virtue might bear fruit. Psychologists, anthropologists, and sociologists might regard these populations as potentially promising research subjects for the study of specific virtues, or of the development of virtue in specific contexts, such as that of providing care for elderly relatives. As a side note, when I explained this idea to a colleague, he remarked that social conditions play roles in shaping the populations we study to learn about virtue. Earlier in the twentieth century, he remarked, people would have looked for ways to care for children with polio, but now, as our society ages,

we need to find ways to care for the elderly, and the nature of our caregiving, as well as our virtue, is shaped by these circumstances – by the age groups requiring care and the diseases from which they suffer.[31]

In short, I would encourage The John Templeton Foundation to take seriously the promise of a "big data" approach to the empirical study of virtue. A partnership between JTF and Google or amazon.com could be exciting and yield data for more fine-grained study. Results in many other areas of big data analysis have been impressive. Unlike the other approaches to virtue measurement noted here, a "big data" approach is "out on a limb," and "outside the box." But what is the impetus toward virtue measurement, if not the drive to press forward into unexplored and exciting territory?[32]

Notes

[1] William Frucht of Yale University Press suggested this idea to us. I thank Jennifer Cole Wright for graciously allowing me to use our shared work, in particular, her important ideas about virtue measurement, in this presentation.

[2] See Bazelon (2013).

[3] See Snow (2010).

[4] For a similar example highlighting the complexities of generosity, see Russell (forthcoming).

[5] Someone might claim that this is too swift a move. The self-centeredness objection concerns the structure of virtuous motivation. According to the objection, those who aspire to be virtuous must do so for self-centered reasons, namely, for an objectionable concern with one's own virtue. Proponents of the objection would assert that it is possible to have the kinds of other-regarding sensitivities and attunements required for

virtue and yet be motivated to be virtuous out of a concern for one's own virtue or moral state. After all, according to social intelligence theory, other-regarding sensitivities are compatible with morally neutral or morally bad motives. Even if virtue is deeply social, why should it not be compatible with self-centered reasons for wanting to be virtuous? In reply, we need to admit that it is both conceptually and psychologically possible for a person to have other-regarding sensitivities, even those integral to specific virtues, and yet be motivated to pursue virtue for self-centered reasons. But we would not regard such a person as fully virtuous or even as very mature in virtue. The fully virtuous person has become so accustomed to acting for the sake of the other that concern with furthering her own virtue through virtuous action fades away; it is not a salient part of her motivational landscape. That is, even if, in early stages of virtue development, a person acts in virtuous and thus, other-regarding ways, but for the sake of her own virtue, it is still possible for the deeply other-regarding nature of virtue to take hold of her psyche, so to speak, and replace her self-directed concern. In other words, as we grow in virtue, our truly virtuous motivations, which are deeply social and other-regarding, become stronger and more fully entrenched, eventually displacing less mature concerns with acting for the sake of our own virtue or virtuous development.

[6] See Goldie (2004).

[7] This view resonates with that of Zagzebski (1996).

[8] I can now no longer find the passage in which this remark appears, but I believe it is in one of the papers in Foot (1978) in which she addresses differences in justifying a moral claim to someone who takes a moral, as opposed to a nonmoral, perspective.

[9] Foot (1978, 8); Aristotle, *Nicomachean Ethics*, 1109a10ff.

[10] See Aristotle, 1103a15ff; Snow (2010), chapter 2.

[11] See McDowell (1998), "Two Sorts of Naturalism."

[12] My thinking about McDowell is here indebted to McDowell (1998), "Virtue and Reason."

[13] Von Wright (1963, 149).

[14] For general discussion, see Smith (1979, 71-73).

[15] See Snow (2012).

[16] Some theorists urge that preconditions for the development of virtue begin earlier, even in the womb. See, for example, Narvaez, Panksepp, Schore, and Gleason (2012).

[17] See Mehl and Pennbaker (2003); Mehl et. al. (2001); and Mehl and Conner (2012), Ch. 10.

[18] See Mehl and Conner (2012), Ch. 10, 178.

[19] Mehl et. al. (2012, 411).

[20] See Mehl, Vazire, and Doris (2013). Jen and I discuss this with the kind permission of Professor Mehl and his colleagues and thank them for sharing their power point presentation with us.

[21] See Mehl, Vazire, and Doris (2013), slide 3.

[22] See *Handbook*, Ch. 10, 180.

[23] See Mehl, Vazire, and Doris, (2013), slide 9.

[24] Ibid., slide 14.

[25] See Mayer-Schönberger and Cukier (2013).

[26] http://en.wikipedia.org/wiki/Big_data. Accessed 27 November 2013.

[27] Ibid.

[28] Ibid.

[29] Mayer-Schönberger and Cukier (2013), 1-3.

[30] Ibid., 2.

[31] I am grateful to Clark Gilpin for sharing this important insight.

[32] I thank The John Templeton Foundation for their ongoing interest in my work and The Jubilee Centre, especially Professor Kristján Kristjánsson, for inviting me to speak at this conference.

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