

15 Reconceptualizing Intrinsic Motivation

Excellence as Goal

Barry Schwartz and Amy Wrzesniewski

***Abstract:** There is a long history of thought and research in the social sciences that views human beings as engaged in entirely instrumental activities in pursuit of goals that typically give them pleasure. This view makes a sharp distinction between “means” and “ends,” and treats the relation between means and ends as essentially arbitrary. Forty years of research on “intrinsic motivation” presents a different view, suggesting that some activities are themselves ends. In this chapter, we argue that distinguishing between intrinsic and extrinsic motivation has been important, but that the current understanding of the distinction is not adequate to capture the most important dimensions of difference between these two types of motives. We suggest a modification of the distinction, between activities that are pursued for consequences that bear an intimate relation to the activities themselves, and those that are purely instrumental. We call the former class of activities “internally motivated,” and argue that while they are not necessarily pleasurable, they yield lasting effects on well-being that instrumental consequences typically do not. Further, we argue that internally motivated activities differ from intrinsically motivated ones, in which the sheer pleasure of the activity motivates its pursuit. We discuss evidence from both laboratory research and field studies, including a longitudinal study of West Point cadets, in support of our arguments.*

The pursuit of excellence leads not only to better performance but also to greater well-being. In the golden era of learning theory in psychology, in the middle of the twentieth century, research methods were developed for studying the behavior of rats and pigeons that were meant to produce general principles that applied to the instrumental, goal-directed behavior of all organisms (Schwartz, 1978; Skinner, 1953). Rats would press levers, negotiate mazes, and run down alleys, or pigeons would peck at illuminated disks for food or water. The central idea behind these methods was that since the relation between the response and the reward – the means and the end – was completely arbitrary, it would be representative of all instrumental, goal-directed activity.

This chapter extends Schwartz & Wrzesniewski (2016). The two chapters have much in common, but the earlier one focuses on the relation between internal motivation and what Aristotle called “*eudaimonia*,” whereas this one considers methodological and conceptual challenges to distinguishing internal motivation, intrinsic motivation, and instrumental motivation.

The relation was “arbitrary” because the response required to produce the food or water could be anything of which the organism was capable, and no relation between that response and the outcome had existed for the organism prior to the experiment. Rats pressing levers for food could be a stand-in for people working in factories or offices for their paychecks.

An assumption that helped justify these methods was that the purely instrumental relation between means and ends (lever press and food) for the rat is what characterized most human activity. Yes, some means might be more pleasant than others (rats seemed to “enjoy” running in exercise wheels, for example), but this was an incidental fact, a mere detail, that got in the way of understanding the far more general relation between means and ends. Without a paycheck, people wouldn’t work. With a paycheck, it hardly mattered what work people did. In making this assumption, learning theorists were following in the hallowed tradition of Smith (1776, 1937), the father of modern economics, and Taylor (1911, 1967), the father of what came to be called “scientific management” (see Schwartz et al., 1978 for elaboration).

We think this view of the relation between means and ends continues to dominate the layperson’s thinking about human motivation. To get CEOs to serve the interests of the company, give them company shares as a significant part of compensation. To get students to work hard in school, give them frequent tests and grades – and even better, rewards like pizza parties – if they do well. To get car salespeople to put maximum effort into closing deals, pay them commissions. And to get doctors to do all that is necessary, but only what is necessary, for high-quality patient care, pay them bonuses for good, but efficient, medical outcomes.

There is little doubt that much human activity is instrumental in just the way that rat lever-pressing or pigeon key-pecking is. But pure, arbitrary instrumentality is not the only possible relation between means and ends. Aristotle (1988), for example, had quite a different view. As evidenced by his masterwork of moral philosophy, *Nicomachean ethics*, Aristotle thought that most human activities had ends, or goals (*teloi*), that were specific to them. It was the human *telos* to pursue excellence, and what “excellence” meant was very much specific to the activity in question. The *telos* of the builder was to produce excellent buildings. The *telos* of the doctor was to cure disease. The *telos* of the athlete was to produce outstanding athletic performances. Of course, in each of these cases the performer might earn a livelihood, but it was earning a livelihood that was incidental to human activity and achieving the activity-specific *telos* that was central to it, at least among people who rightly understood the point of their activities. Certainly, many of the things that people do are instrumental; they are means to an end. But for Aristotle, the ultimate end to which all activities lead is flourishing (*eudaimonia*), and that requires excellences that are intimately related to the activities of those who pursue them.

Aristotle’s teleological framework for understanding human nature is probably foreign to most modern students of human behavior. But with a little bit

of translation, his ideas can be related to modern conceptions. In this chapter, we will try to do the translating, specifically in relation to motivation. Partly in response to the instrumentalist assumptions of learning theory, it has become commonplace to distinguish between “intrinsic” and “extrinsic” motivation. Extrinsically motivated activity is directed to some other end – it is a means to that end. It is instrumental, like the rat’s lever press. Intrinsically motivated activity is an end in itself. Extrinsically motivated activity is work; intrinsically motivated activity is play. Extrinsically motivated activity is all about achieving some instrumental goal; intrinsically motivated activity *is* the goal (see Deci, 1975; Deci & Ryan, 1985; Lepper et al., 1973; Pink, 2011; see Hidi, 2016, for a recent review of the literature).

We believe that while the above distinction between intrinsic and extrinsic motivation offers a much richer view of human motivation than the purely instrumental view that it replaces, it fails to capture important distinctions that should be made between various types of relations among motives, actions, and consequences. In this chapter, we will try to make some of these distinctions and clarify what the terms “intrinsic” and “extrinsic” ought to mean. In particular, we present a view intended to enrich the concept of intrinsic motivation by suggesting that “intrinsically motivated” behavior frequently has goals aside from the pleasure of engaging in the behavior. The consequences of intrinsically motivated behavior often matter; it is just that the consequences that matter have a special relation to the behavior that produces them. And because the use of the terms “intrinsic” and “extrinsic” is already rather fraught, we will introduce a slightly different terminological distinction in order to describe a fuller conceptualization of the nature of human motivation.

“Intrinsic” and “Extrinsic” Motivation

Psychologists have long realized that to understand human behavior, we need to know not only what someone does, but why they do it. Motives matter. Different types of motives have different effects on behavior even when the motives seem to point in the same direction. For example, Lepper et al. (1973) showed that giving nursery school children awards for drawing made them less interested in drawing, which they liked to do, and led them to draw less interesting pictures than if they weren’t given awards. And Deci (1971, 1975) showed that giving college students money for solving puzzles made them less interested in working on such puzzles, which they enjoyed, when money was not available. Similarly, Gneezy and Rustichini (2000) showed that adding a fine to the social sanctions already associated with parents coming late to pick up their children from daycare weakened those social sanctions and increased lateness, rather than strengthening those social sanctions and reducing lateness. In the first two cases, it might be said that the rewards that were added

to the already enjoyable activities of drawing and puzzle-solving instrumentalized the activities, turning “play into work,” and thus made the activities less enjoyable. Analogously, the fine for lateness instrumentalized that activity and thus gave parents permission to come late, since they were “paying” for it.

What *should* happen to the performance of demanding, effortful activities when intrinsic and extrinsic motives are combined? Logic would suggest that if you have one reason for doing something, adding a second reason to do the same thing would be even better, rendering motivation more tenacious, follow-through stronger, and outcomes better (see Cerasoli et al., 2014 for a meta-analysis of this very question, and Hidi, 2016, for a recent review). Schools and workplaces are full of systems that attempt to tap people’s intrinsic motives to act (e.g., because engaging in the activity is the moral, interesting, or meaningful thing to do), while also providing rewards intended to spark extrinsic motives to pursue the same acts (e.g., grades, bonuses, or promotions). Yet – as shown by the studies of nursery school children’s drawing and daycare parents coming to fetch their kids, and in a direct challenge to this assumption – a substantial body of research suggests that far from boosting motivation, holding extrinsic motives can undermine whatever intrinsic motives may have been operating, leading to drops in overall motivation, persistence, and performance (Deci et al., 1999; Deci & Ryan, 2014; Frey & Oberholzer-Gee, 1997; Frey, 1994; Kiviniemi et al., 2002; and see Murayama et al., 2010 for evidence on the neural basis of this undermining effect and Hidi, 2016 for a review of the neuroscientific evidence). In short, this work suggests that salient instrumental incentives may trigger extrinsic motives, which act to undermine motivation that would otherwise be based in the value and reward of doing the activity or engaging in the act for the sake of objectives that are intimately connected to the act itself. This effect, labeled the “motivational crowding out effect” by economists (Frey, 1994) and the “overjustification effect” by psychologists (Lepper, et al., 1973), has been demonstrated across a range of experimental contexts (Deci et al., 1999), though there are arguments that question both the reliability and the interpretation of such studies (Cerasoli et al., 2014; Eisenberger & Cameron, 1996; Lacetera et al., 2012).

Much of the existing literature in the psychology of motivation treats intrinsic and extrinsic motivation as if there is a stark categorical distinction between them (but see Gerhart & Fang, 2015). It is assumed that behavior is either intrinsically motivated or extrinsically motivated. In addition, intrinsic motivation is usually associated with the pleasure that derives from simply engaging in the activity, rather than with the consequences of the activity. That is, the nursery school kids love to draw whether or not the end result is a nice picture. It is worth noting that this definition of intrinsic motivation rules out the possibility of being intrinsically motivated to do anything that is *not* pleasurable, an untenable definitional state of affairs to which we will

return. What is more, researchers also often use the consequences of behavior as an indication of what motivates the behavior (e.g., if a student gets an “A” on an exam, she is assumed to be motivated by the grades). So, for example, an instrumental consequence may be added to a situation in an effort to improve performance (e.g., a gift certificate for high scores on a standardized test). If that consequence influences behavior (e.g., students do better on the test), researchers conclude that instrumental incentives work, and infer (since the incentives worked) that the behavior was instrumentally motivated in the first place. This presumption renders it impossible to discern the presence of intrinsic motives in cases where actions have produced any sort of instrumental outcome. Finally, it is generally assumed that intrinsic motivation leads to better performance than extrinsic, though interestingly, nearly every intervention designed to increase motivation focuses on the extrinsic. Though a recent meta-analysis suggests that extrinsic rewards can boost performance even when intrinsic motivation is present (Cerasoli et al., 2014), it is still unclear whether rewards *increase* intrinsic motivation or act as a supplementary boost.

We think that the assumptions that intrinsic motivation is entirely about the activity and not its consequence, and that the presence of an instrumental consequence rules out the possibility that an activity is intrinsically motivated, are mistaken in ways that lead to oversimplification of what is an extremely complex set of relations between motives, actions, and consequences. Here, we attempt to clarify some of these relations and delineate some important distinctions, leading to a series of questions for both theoretical and empirical analysis.

The Idea of a “Practice”

Imagine a second grade teacher who enjoys her work and is good at it. Her work produces a family of consequences for her. She gets pleasure from the minute-to-minute, day-to-day character of her job and from interacting with young kids. She gets satisfaction from knowing that she is an excellent teacher – that she does the job well. She gets satisfaction from evidence that kids are learning and are enthusiastic. She enjoys respect and admiration from her peers. She enjoys respect and admiration from parents. She enjoys respect and admiration from society at large. She appreciates her nice salary and benefits as well as her job security. She is pleased that she can leave her workplace at three in the afternoon. She likes that she has lots of vacation days and the entire summer off.

Thus, this teacher’s work has multiple consequences. Which of them serve also as motives? We can identify several possibilities: pleasure in the activity, pursuit of excellence, status and acclaim, salary, job security, and benefits, and the desire to have a positive impact on others. Which of these motives count as “intrinsic”? And what are the criteria for establishing a motive as intrinsic?

We think these questions can be profitably addressed from a framework developed by neo-Aristotelian philosopher Alasdair MacIntyre. In *After virtue* (1981), MacIntyre introduces the idea of a “practice,” which he defines as

any coherent and complex form of socially established cooperative human activity through which goods internal to that form of activity are realized in the course of trying to achieve those standards of excellence which are appropriate to, and partially definitive of, that form of activity, with the result that human powers to achieve excellence, and human conceptions of the ends and goods involved, are systematically extended (p. 175).

This definition is complex, and requires elucidation. We will do so by examining several of its important features. First, practices are complex. The card game of bridge is a practice, whereas Rochambeau (“rock, paper, scissors”) is not. The game of tennis is a practice, whereas hitting a tennis ball over the net is not. Gardening is a practice, whereas planting flowers is not.

Second, practices are characterized by the pursuit of excellence or, at least, competence. People who engage in practices strive to be good at them. Third, what constitutes excellence is itself defined by standards internal to the practice, largely established by practitioners themselves. Thus, one is perfectly free to say something like, “I don’t know much about art, but I know what I like.” But one is not entitled to expect that anyone (especially artists) will care what one likes or interpret one’s likes and dislikes as an indication of the quality of the art. In another domain, the quality of a search engine in presenting users with exactly the information they seek (the *telos* of search engine design, after all) need have nothing to do with the profits it generates for shareholders. Software designers engaged in the practice seek search engine excellence. Shareholders, and software designers who are not “practitioners,” seek profitability.

The concept of excellence is necessarily imprecise. First, if MacIntyre is right, excellence is a moving target since, as practices develop, the standards of excellence among practitioners change. And second, each practice has standards of excellence that are peculiar to it. There is no abstract standard of excellence that unites instances of excellence across different practices. Moreover, there is room for disagreement – both among practitioners, and between practitioners and non-practitioners – about what excellence means (see Kuhn, 1977 for a parallel argument about judgments of the excellence of scientific theories among practicing scientists). Nonetheless, however imprecise “excellence” may be, in MacIntyre’s (and Aristotle’s) telling, only activities that have standards of excellence can be practices.

A fourth feature of practices, most important for purposes of this chapter, is that practitioners pursue goods or ends that are internal to the practice itself. In other words, there is an intimate relation between the ends of the practice and the means to achieve those ends. For our hypothetical second grade teacher, educating students and engendering in them enthusiasm for learning are internal to the practice. Salary and benefits, job security, and summers off

are not. These ends could be achieved in other ways, through any number of other occupations; the relations between the teacher's teaching and these ends are purely instrumental. Not even praise and admiration from parents and peers is unambiguously internal to the practice. Perhaps praise for excellence *as a teacher* is; praise for excellence more generally is not.

Finally, in MacIntyre's conception, practices and the goals toward which they are aimed develop. As people – gardeners, bridge players, biologists, teachers, software engineers, or psychologists – continue to practice, standards of excellence change. That is, what it means to be an excellent psychologist in 2017 is likely quite different from what it meant to be an excellent psychologist in 1967. The line between what is and is not a practice is sometimes fuzzy, and some activities may be practices at one point in their development but not at another. But we think the differences between prototypical practices and mere instrumental activities are clear. And we also think MacIntyre's framework enables us to discern whether a given participant in a practice is a true practitioner or not.

It is worth noting that there is no mention of pleasure in MacIntyre's account of practices. Of course, our second grade teacher may derive pleasure from her day-to-day activities, but that is just icing on the cake. As Aristotle (1988, No. Book X, section 3) writes, "there are many things that we would be keen about even if they brought no pleasure ... [And] we should choose these even if no pleasure resulted." Nussbaum (1990) observes in commenting on this passage that, "even if in fact pleasure is firmly linked to excellent action as a necessary consequence, it is not the end *for which* we act" (p. 57). In other words, not every consequence of an act is a motive for the act. What makes the second grade teacher's activities "internally motivated" is that she is pursuing aims that are internally and intimately related to teaching – aims that cannot be achieved in any other activity. The crucial point here is that participation in a practice is not aimless. It is not "play." Results matter. Indeed, results matter critically. But the route to achieving those results also matters. As we pointed out recently (Wrzesniewski et al., 2014), a "practicing" gardener pursues a beautiful and bountiful garden, but will not hire someone else to produce and maintain that garden. The "practicing" painter pursues a striking work of art, but will not hire someone else to paint it. The "practicing" doctor wants to be the one who cures disease and eases suffering, the "practicing" teacher wants to be the one who opens up and inspires young minds, and so on.

Competitive games have winners and losers, and people who love the games want to win. Indeed, if they are practitioners pursuing excellence, they *should* want to win. But they should not want to win by cheating. If they cheat, they are treating the ends as external to the activities that produce them. As practitioners pursuing excellence, the cheaters are cheating themselves. One of us (B. S.) discovered the difference between playing a game for amusement and distraction and playing a game to pursue excellence when he taught his seven-year-old granddaughter to play rummy. Rummy is a rather simple game, but

playing it well requires that you notice which cards have been discarded and which have been picked up by your opponent, in an effort to construct your opponent's unseen hand, so you can avoid discarding cards that will improve that hand. When granddad pointed this out to granddaughter, by showing her cards he had withheld that she needed, she asked how he knew she needed those cards. He explained, thinking that her development as a rummy player was about to accelerate. She threw down her cards, exclaiming, "I thought we were playing a game, not thinking." Thus ended her career as a rummy player.

It is perhaps an unfortunate accident that early research on intrinsic motivation focused on the drawings of four-year-olds and the puzzle-solving of college students. Neither of these activities is a practice, and both are rather effortless. Thus, the focus was on pleasure in the activity – engaging in the activity "for its own sake" – rather than on pursuit of excellence in the activity. But even in these cases, we doubt that the pre-schooler would be pleased if others did the drawing and handed it to her, or the college student would be pleased to get handed already-solved puzzles. Pre-schoolers want pleasing pictures *that they drew*, and college students want solved puzzles *that they solved*. In other words, we think that the framework of means and ends is as characteristic of "intrinsically" motivated behavior as it is of "extrinsically" motivated behavior. The critical distinction between these two categories of means-ends relation is in the connection between means and ends. With so-called "intrinsically motivated" behavior, the relation between means and ends is anything but arbitrary.

From "Intrinsic"/"Extrinsic" to "Internal"/"Instrumental"

To focus on the relation between means and ends, rather than on how pleasurable an activity may be, we prefer the term "internal" to "intrinsic" and the term "instrumental" to "extrinsic" (Wrzesniewski et al., 2014). Both of our terms acknowledge that consequences matter, and focus on the relation between the consequences that matter and the activities that produce them. An instrumental relation means that a particular act producing a particular consequence is a mere matter of contingency. The instrumentally motivated actor is after the consequence and will presumably choose whatever route to that consequence is most efficient and convenient. The internally motivated actor cares about both the activity and the consequence, as well as the relation between them.

We believe that our suggestion that consequences also matter to internally motivated activities calls attention to the most salient characteristics of those activities, while at the same time honoring the distinction that previous researchers have made between intrinsic and extrinsic motivation. In reality, the pursuit of excellence in many, if not most, activities involves long periods of intense training that are often anything but pleasurable. Learning anatomy is not fun for most medical students. Weight training is not fun for

most competitive athletes. If one takes “pleasure in the activity” as the hallmark of intrinsic motivation, then it is implausible to imagine – given the perseverance necessary in the face of obstacles and challenges, and the sheer boredom that often accompanies some of what it takes to achieve excellence – that any pursuit of excellence could be regarded as intrinsically motivated. Young people searching for their “calling” (see Wrzesniewski et al., 1997) may use the pleasure they get from pursuing various activities as diagnostic of whether they are “called” to them, and may thus wrongly reject many activities that demand high effort at not especially pleasurable tasks as not right for them. Duckworth’s concept of “grit” captures well the point we are after (Duckworth & Gross, 2014; Duckworth & Seligman, 2005; Duckworth et al., 2007, 2010). Grit, Duckworth tells us, has two components. One is perseverance – commitment for the long haul. The second is engagement, which will not always be pleasurable, but will keep people working at things that are hard. Grit turns out to predict success in a wide variety of domains better than various kinds of aptitude tests typically used for this purpose. The reason, we suspect, is that grit enables people to withstand the countless hours of deliberate practice, much of it focused on aspects of an activity that people do poorly, that are a key ingredient in the development of expertise (Ericsson et al., 1993).

Our point in invoking grit is that it highlights the importance of perseverance even in activities that are internally motivated. Our view is that pleasure should not be seen as the hallmark of whether motivation is internal or instrumental. Rather, we see pleasure as an affective state that often accompanies engaging in activities that are internally motivated, but that need not accompany such activities. Nor do we think that experiencing pleasure disqualifies an activity as internally motivated (e.g., “she gardens because it gives her pleasure. Therefore, gardening is instrumental in the pursuit of pleasure.”). We think a focus on pleasure distracts us from the main point, which is a distinction between behavior whose motivating consequences are intimately related to the acts and behavior whose motivating consequences are arbitrarily related to the acts.

What Motivates the Second Grade Teacher?

With the distinction between internal and instrumental and MacIntyre’s conception of practices in mind, let us revisit our second grade teacher. As we said above, she appreciates interacting with and inspiring her students, seeing evidence that they are learning, gaining the approval of parents and peers, and having a nice salary and benefits, job security, and ample time off. Her work provides her with many attractive consequences. But which of them are motives? And which of the motives are internal to the activities?

It is obvious that the development of her students is internal to the practice of teaching. What else could excellence in pursuit of the *telos* of education mean if not this? And it is equally obvious that her salary and benefits, and the other trappings of the job, are instrumental. She certainly appreciates all these features of her job, but would she continue to do her job if they disappeared? And would she willingly switch jobs if she found another occupation that provided similar salary and benefits?

The matter of status and approval from colleagues and parents is less clear. Does she want status, or status as an educator? If the former, then she might switch jobs if something became available that offered higher status. If the latter, then arguably what she wants is excellence as a teacher, and the acclaim she gets is just a by-product of her pursuit of the *telos* of education. It is possible, though, that what she wants is the status with or without the excellence that normally produces it, in which case she might put more effort into self-promotion than self-improvement. The distinction here may be subtle, but we think it is a key to understanding the distinction we made some years ago between attitudes toward work as a “career” and attitudes toward work as a “calling” (Wrzesniewski et al., 1997). People with careers are interested in rising in the hierarchy and attaining the status and other benefits that come with advancement. But they are interested in advancement per se, rather than advancement that is simply a by-product of excellent practice in their particular chosen occupation. People with callings, in contrast, certainly appreciate recognition, but they would want any recognition they get to be for excellence in the particular work they have chosen to do.

To illustrate this subtle distinction, imagine that the school in which our teacher works, influenced by the No Child Left Behind (NCLB) Act, adopts a set of standardized tests that assess student progress. Imagine further that status and acclaim will come to teachers whose students do best on these tests. Finally, imagine that our teacher believes that these tests, as metrics, are misguided, both as ways to measure educational attainment and as goals for teachers to strive to achieve. What will this teacher do? If she is motivated by status and the prospects for advancement (i.e., she has a “career”), she will play by the new rules and do whatever she can to help her students excel on the tests. If she is motivated by the *telos* of education (i.e., she has a “calling”), she will continue teaching as before, even if it means foregoing the opportunity to achieve the respect and approval of peers and parents.¹ Indeed, she might even

1 But not all parents. One of us (A. W.) was thrilled when her daughter’s veteran kindergarten teacher – with more than 25 years of experience honing her craft – explained at back-to-school night that she had little interest in the regimented, test-directed instructional system at use in the school, and instead planned to teach as she always had, with a single goal to guide her. That goal? “To make your children love learning.” She assured us that all the rest would follow, which it did, in abundance, that year. Here was, quite clearly, a teacher dedicated to the *telos* of her practice.

agitate to get the school to abandon these tests, suggesting that in relying on them, the school is losing sight of the true *telos* of the practice of education.

Our analysis of the second grade teacher suggests some of the complexity in assessing the nature of the motivation underlying job performance, and the difficulty of identifying motives as internal or instrumental. We think it is more realistic to imagine the distinction between internal and instrumental as a continuum rather than as categorical. Praise from parents and peers is less “instrumental” than salary and benefits. Moreover, some aspects of the teacher’s work that may seem quite instrumental may not be. She may value the time off she has for the opportunities it gives her to develop lesson plans and become an even better teacher. Does this make the frequent school holidays and vacations less instrumental? We think probably it does.

More generally, it seems clear to us that some goods are only attainable through the particular activity, some are attainable through the activity but also through some other activities (they are internal to success at a practice, but not unique to it), and some are completely arbitrary in their relation to a practice – a rule imposed from without rather than a connection that is built in.

Why and When Internal Motives Are Better Than Instrumental Motives

There is a widely held belief – almost a presumption – that internal motives will produce better performance than instrumental motives. How could this not be true? Internal motives drive people to achieve excellence in the activity. Instrumental motives will only yield this result if the instrumental outcomes depend on excellence. If a teacher is working principally for salary, benefits, and time off, she will only be an excellent teacher if these aspects of her job depend on it.

We think this view is true in general, but not universally. We think that for certain kinds of work, instrumental motives may be just as powerful as internal ones. If the work involves relatively simple, routinized tasks, in which performance is easily assessed, instrumental motives will probably do the job (see Cerasoli et al., 2014). Smith’s (1776, 1937) famous pin factory, the example with which he celebrates the productive efficiency that accompanies the division of labor, features work structured in exactly this way. The tasks are simple, repeated over and over, easily monitored, with little training required. One might say that the division of labor was invented with an eye toward economizing on the need for employees who had a *telos*. For complex jobs that require flexibility and discretion, internal motives might be needed, or at least be very helpful. Deskilling the task also decreases the need for workers with such motives. And it has the added benefit of putting control of the work in the hands of the manager, who organizes the instrumental incentives, instead of in the hands of the worker, who may or may not have the needed internal motives (Marglin, 1976).

We think Aristotle (and MacIntyre) would be less impressed with the pin factory than Smith was. For Aristotle, excellence required doing the right thing, at the right time, in the right way, for the right reasons. Nussbaum (1990) calls this “the priority of the particular.” Can all this “rightness” be measured and quantified in a way that enables one to reward good performance with instrumental incentives? Given the complexity of most work, and the improvisation and unrewarded effort it requires, we doubt it. Even in the simplest work, unexpected obstacles, challenges, and opportunities to act with excellence abound. One of us (A. W.) has shown that even in situations requiring relatively simple and well-defined work (as in the case of hospital janitors), those employees who seem guided by the *telos* of hospital work grasp opportunities to step outside their well-defined occupational roles to do what is needed, or would be helpful, in unforeseen circumstances (Wrzesniewski & Dutton, 2001). Employees who work with this *telos* in mind end up sounding a lot like someone striving to become excellent in a practice, and they develop complex systems for discerning what kind of response is needed, and when (see Schwartz, 2015; Schwartz & Sharpe, 2011).

We think that even rather simple and easily measured work benefits from what are sometimes called “incomplete contracts.” Few work contracts specify precisely what is to be done and how it is to be done. The contracts leave room for people to use their discretion when a situation calls for it. Incomplete contracts may be inevitable, and trying to make them complete almost always results in reduced employee effectiveness (Hirsch, 1976). But it is worth pointing out that there is much less danger in relying on incomplete contracts if employees are guided by internal motives than if they are guided by instrumental ones. Indeed, some of the research we have described on how extrinsic motives can undermine intrinsic motives (Deci, 1975; Lepper et al., 1973) – or as economists prefer to describe it, how extrinsic motives can crowd out moral motives (Frey & Oberholzer-Gee, 1997) – may suggest that the more complete one makes an employee contract, the more one threatens the aim of employees to pursue the *telos* of their occupation. We see this when dedicated teachers start teaching to the test as their employment status comes to depend more and more on student test performance. The problem with standardized tests is probably not the tests themselves, but the uses to which the test results are put, i.e., the instrumental outcomes for teachers that depend on student test performance.

In a recent review and argument along these lines, Stroebe (2016) discusses the explosive growth of reliance on student course evaluations to assess the quality of university instruction. Stroebe provides evidence that course evaluations have become commonplace in universities across the United States and that they are increasingly being used in faculty assessments for promotion and tenure. He then notes the paradox that, whereas students are reporting spending less and less time on their coursework (a drop of almost 75 percent over the last 50 years), their grades are getting higher and higher (grades have

inflated by about 25 percent over the last 25 years). Thus, students are apparently working less but “learning” more. Stroebe then presents a persuasive argument that decreased work, improved grades, and increased emphasis on course evaluations are related. He suggests that an implicit “contract” between students and their teachers has developed whereby students provide positive course evaluations of their teachers in exchange for low workloads and high grades. Though, of course, other interpretations of these findings are possible, the one most hopeful interpretation – that students are giving high ratings to courses and getting good grades because they are learning more – is contradicted by evidence that positive student evaluations of introductory courses are uncorrelated (or in some studies, even negatively correlated) with student grades in more advanced courses.

Stroebe’s review should give those who embrace “accountability” via course evaluations pause. But from the point of view of the arguments in this chapter, the problem is less with the evaluations per se than with the uses to which they are put. Feedback to teachers about how they are doing (in addition to student performance on exams) is crucial if teachers are to improve. Feedback is not the problem; the problem is the instrumentalization of that feedback – its consequences for promotion and tenure. One might imagine that if critical feedback has no consequences, the teachers will just ignore it. But this will not be the case for teachers with the *telos* of educating and inspiring students. For real “practitioners,” the feedback is the point; the consequences for career development are secondary.

It is a truism in management theory that, as a manager, you should “be careful what you measure, for what you measure is what you will get” (e.g., Kerr, 1975). We are suggesting a qualification to that truism by suggesting that what you measure is what you will get primarily if you instrumentalize what is being measured. The potential of this instrumentalization to undermine the core aims of nearly any pursuit is, we feel, consequential and potentially quite damaging.

To conclude this section of the chapter, the possibility that the relative merits of internal and instrumental motives may depend on the nature of the activity that is required helps explain why much of the criticism leveled at the use of extrinsic incentives has focused on tasks that require judgment, flexibility, and creativity (e.g., Collins & Amabile, 1999; Schwartz & Sharpe, 2011). Though the empirical status of this criticism is somewhat controversial, the idea behind it is that when desired activities can be precisely specified and measured, relying on instrumental consequences may not impair performance, and may even enhance it. It is when flexibility and intelligent variation are required that internal motives come more into their own (see Schwartz, 1982, for some evidence consistent with this view).

The West Point study. Testing the assumption that the pursuit of *telos* in an activity can be undermined by the presence of more instrumental motives was our aim when we embarked on a study that assessed the long-term impact of

different types of motives on outcomes in a real-world setting. We wanted to find a setting in which both internal and instrumental motives were possible, and where the outcomes at stake were of great significance to the lives of participants and to the wider world as well. And so we studied West Point cadets, chosen because they voluntarily undertake a grueling nine-year commitment when they matriculate at the United States Military Academy at West Point (Wrzesniewski et al., 2014). West Point has traditionally been the preeminent training ground for military leadership in the United States. After four years of undergraduate and military leadership education, involving a difficult physical component, graduates of West Point become commissioned military officers – second lieutenants – with a five-year commitment of military service. It is a significant undertaking, and one that requires a great deal of motivation and effort. It was the structure of the motivation of cadets, and their impact on the outcomes the cadets experienced, to which we turned our attention.

While one might expect that all West Point cadets matriculate out of a motivation to serve their country as military leaders – an internal motive, impossible to separate from the activity itself – it is also true that a West Point education and military officership can yield better career opportunities later – an instrumental motive. We followed 10,238 West Point cadets from ten consecutive entering classes for periods of up to 14 years to learn what happens to them as a function of their original motives to attend. The strength of their various motives was measured twice upon entry to West Point, and fell into categories reflecting internal and instrumental motives, among other types. We found that for key educational and career outcomes, those with stronger internal motives, who were there because they deeply desired training as military leaders who would serve the country, were more likely to graduate from West Point and become commissioned officers, to be identified as eligible for early promotion in their first five years as a military officer, and to remain in the military up to six years (the end of the window we measured) after their commitment to the country was fulfilled. In contrast, those with stronger instrumental motives were less likely to be identified as eligible for early promotion or to remain after their mandatory military service period was up.

Most striking, however, were our findings regarding the combined effects of internal and instrumental motives. For every outcome – graduation, early promotion eligibility, and remaining in the military – instrumental motives weakened the positive effects of internal motives.² The undermining of internal motives by instrumental motives significantly hurt cadets' chances of ever graduating from West Point and becoming military officers. Even when cadets

2 Instrumental and internal motives were measured using two separate surveys administered at different times close to the start of cadets' time at West Point. Cadets rated the strength of their agreement with a number of motives that could have led them to matriculate. The motives that represented – conceptually and psychometrically – instrumental and internal aims were used to assess these motivations.

who had successfully become military officers were internally motivated, the mere presence of instrumental motives made consideration for early promotion and the likelihood of staying in the military less probable. While our results could be interpreted to mean that internal motives can help dampen the negative effects of instrumental motives, the story here is clear – salient instrumental motives, either on their own or in combination with internal motives, harm individual and institutional outcomes. And we hasten to point out that, unlike most laboratory studies in which the effects of adding instrumental motives are assessed in the short term, in the West Point study, motivational differences at age 18 were manifested up to 15 years later.

While the example of West Point cadets is rather specific, other evidence from individuals drawn from a range of occupations suggests that seeing work as a calling, in which the internal aims of the work are ends in and of themselves, corresponds with higher job and life satisfaction, as well as with more time spent at work and fewer days of work missed (Wrzesniewski et al., 1997). Others find that those who see work as a calling – whether they be classical musicians, zookeepers, or administrative assistants – are more engaged with, involved in, and motivated to stay in their jobs, even if they are no longer paid (see Bunderson & Thompson, 2009; Dobrow, 2013; Schabram & Maitlis, 2016; Wrzesniewski et al., 1997). Indeed, people for whom the internal aims of their job are their motives for working are also more identified with and attached to the organizations in which they work (Cardador et al., 2011). Finally, while evidence on whether those with callings are better performers on the job is still thin, data showing a positive (and predictive) effect of callings on performance is growing (see Hall & Chandler, 2005; Wrzesniewski et al., 2017).

Diagnosing Motivation: Methodological Issues

The story about motivation we have told here is a complex one. Everything people do has multiple consequences, but not every consequence is a motive. Some motives are clearly internal, some are clearly instrumental, and some are ambiguous. Some activities are poorly served by recruiting instrumental motives; others are well served. What can be done to make sense of a messy domain like this one? Can we rely on the standard analytic and experimental toolkit that characterizes the work of empirical scientists to clarify the relevant issues?

Consider, again, the second grade teacher. What might we do to determine which of the consequences of her work are motives? An obvious move would be to introduce a performance bonus based on her students' standardized test scores. If scores go up, we infer instrumental motivation. If not, then we infer internal motivation (or that the teacher is incapable of raising test scores). The strategy seems straightforward enough, and countless efforts to find

instrumental incentives that will improve the school performance of students have just this character: introduce material incentives into the classroom and observe whether performance improves.

This kind of research on outcomes is essential if one is interested in determining whether one's interventions make a difference. But what the literature on motivational competition teaches us is that just because an instrumental incentive *can* affect behavior does not mean that it previously *was* affecting behavior. In other words, one can't infer from the fact that instrumental incentives had effects that the behavior in question was motivated by instrumental incentives prior to the intervention. Motivational competition shows us that incentives change not only behavior, but also the motivational structure that supports the behavior. The nursery-school children in the Lepper et al. (1973) study did not draw to get awards until their drawing got them awards. So the introduction of instrumental incentives can *create* a phenomenon rather than reveal it.

Smith (1776, 1937) realized this 250 years ago, when he wrote of people consigned to work on assembly lines that:

The man whose life is spent in performing a few simple operations ... has no occasion to exert his understanding, or to exercise his invention in finding out expedients for difficulties which never occur. He naturally *loses*, therefore, the habit of such exertion and generally *becomes* as stupid and ignorant as it is possible for a human creature to be. (p. 615, emphasis added)

Smith's point was that factory work changes people (see also Kohn & Schooler, 1982 for evidence on this point). What was the man like before he entered the factory and "lost" the habit of invention and creativity? How intelligent was he before the factory made him "become as stupid and ignorant as it is possible for a human creature to be"? And so it is with instrumental incentives. Manipulating them to see if they work is one thing. Manipulating them to draw inferences about the motivational structure influencing the people who are subjected to the manipulation is quite another. And so, the tools we normally rely on to analyze complex phenomena may fail us when it comes to diagnosing motivation (see Schwartz, 2015 for an extended discussion of this point). The tools we use to "diagnose" may actually be creating motivational structure rather than diagnosing it. Changing the structure of work may change the structure of motivation of those who do the work. Thus, in attempting to assess motivation, we are attempting to assess a moving target, with measurement tools that may alter what they are measuring.

The same possibility arises when we use motivational tools to encourage performance. MacIntyre (1981) discusses the challenge of inspiring a young person to develop skill at chess. The problem with chess, as with many other complex activities (like, for example, learning to play the piano or learning to read) is that the *telos* of the activity may not become apparent until the child has reached a certain level of proficiency. So how does one instill that level of

proficiency? MacIntyre imagines bribing the child with treats for good moves or winning games until a point is reached at which the *telos* of the game takes over. But the lesson of research on the overjustification effect and motivational crowding out is that the very bribes used to help create a sense of the *telos* of chess may prevent it from appearing. Given this possibility, it may be more promising to make the early steps toward proficiency in a complex practice as engaging as they can be, so that instrumental incentives are not required to keep the child engaged.

Our proposal about the dynamic nature of motivation is not meant to suggest that efforts to do analytic research will tell us nothing fundamental. Indeed, some such efforts may help us understand behavior energized by multiple motives. Return, again, to our second grade teacher. Suppose that instead of adding material incentives for high test scores, we removed personal contact with the children. The teacher would videotape her lessons and the videos would be played for the kids. If it were to turn out that, under these conditions, the teacher's behavior was less energetic and her lessons were less inspired, we might infer that a substantial part of what motivated the teacher was the prospect of daily interactions with her students. Treating this result as an *essential* fact about teacher motivation might be unwarranted, but treating it as at least a *contingent* fact would be perfectly justified (though we hasten to add that diagnosing what is essential and what is merely contingent is not a simple matter).

Concluding Thoughts

In this chapter, we have argued that engaging in and pursuing excellence in activities for reasons that underscore the purpose of the activities themselves marks a meaningful departure from the instrumental reasons so often assumed to be driving activities. What is more, to be internally motivated to pursue an activity need not be based in the pleasure that activity brings. Indeed, the opportunity to develop and grow in that activity can be an even more powerful and long-lasting motive than pleasure (Ryan & Deci, 2001; Wrzesniewski et al., 2014).

Often, if not always, the pursuit of excellence leads to better performance. But perhaps even more importantly, it leads to greater well-being. Rather than well-being resulting from the pursuit of pleasure or pleasurable ends (the focus of hedonic approaches to well-being), we align with a view of well-being that is based in Aristotle's conception of *eudaimonia* – the pursuit of excellence in the practices one undertakes. The depth, range, and nature of the well-being that results from deep engagement in activities, for ends that are inextricably connected to the activities themselves, is apparent in studies of work as a calling. In callings, as in any practice undertaken for the sake of the *telos* of the practice itself, well-being results from its pursuit, as well as from

its ends (see Bunderson & Thompson, 2009; Cardador et al., 2011; Dobrow, 2013; Hall & Chandler, 2005; Wrzesniewski et al., 1997, 2017). Indeed, in a study of animal shelter workers, all of whom thought of their work as a calling, those who described their calling in terms of constituting a practice in which they were developing and investing to excel in the work thrived relative to those who understood their callings through the contribution they stood to make or the identity they enacted in the work (Schabram & Maitlis, 2016). In other words, the self-help truism that “it’s the journey, not the destination” is neither completely true nor completely false. The “journey” matters, but, as we have been arguing throughout this chapter, the “destination” matters too.

The stability of well-being that depends not on the fleeting pleasure gotten from instrumental outcomes, but rather resides in the activity itself, makes all the difference in understanding what it is that makes work, play, or any other activity worth doing. It is possible that current efforts to measure well-being that are deployed by psychologists and other social scientists have the hedonic (rather than the *eudaimonic*) framework built into them, with their focus on the experience of positive and negative affect, so that pleasure seems even more important to well-being than it would if measures of well-being were differently constructed. Thus, a different set of tools for measuring well-being might provide even more impressive evidence for a *eudaimonic* conception of a life well-lived than is presently suggested by the evidence, though the importance to well-being of the sorts of experiences we have focused on in this chapter is impressive, even with the deck stacked against it.

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