IDENTITY UTILITY, THE RATIONALITY OF "LABOR," AND THE FUNDAMENTAL PRINCIPLE OF ENGAGEMENT

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ABSTRACT

This paper explains the efficacy of the group methods of Kurt Lewin by way of a rational action model based on a utility function that includes "identity utility," a concept invented by George A. Akerlof and Rachel E. Kranton [1]. Implications for the work of leadership are developed, and a direction for further research is suggested.

I. INTRODUCTION

The purpose of this paper is to state and prove what will be called "The Fundamental Principle of Engagement," which asserts that *organizational efficiency is optimized when those who are doing the organization's work participate, up to their levels of competency, in the formulation of their own work instructions.* The proof will be derived from a rational choice model that includes the concept of "identity utility" [1].

To simplify the presentation of this material, let us begin with an example. In the 1980s, when the US auto industry was taking a bashing from its obsessively quality conscious, efficient Japanese competitors, authors Tom Peters and Robert Waterman published *In Search of Excellence* [17], which became a business best seller in its time. It was also a powerful influence on American managerial discourse for the next decade. In that text, commenting on a *Fortune* magazine article that celebrated the achievements of Honda, they wrote:

> One of our favorite stories in support of *Fortune*'s analysis is about a Honda worker who, on his way home each evening, straightens up windshield wiper blades on all the Hondas he passes. He just can't stand to see a flaw in a Honda! ([17] p. 37)

Apparently, there had been a batch of Hondas in which the wiper blades had been incorrectly applied, and this man had taken it upon himself to fix that problem every time he saw it, even when he was walking home from work. That Honda worker was apparently committed to something more than his paycheck since he was clearly "off the clock." From an orthodox economic standpoint, his actions were irrational, or at best, "non-rational," since he was expending effort—a "material" resource—while receiving nothing material in return. That is, he reduced his total utility by fixing those wiper blades on his way home from work.

A perfunctory interpretation of this narrative might suggest that the man from Honda personally identified with his company's products, its brand equity, its goals, and its mission. This is clearly what Peters and Waterman thought. A more skeptical view of the matter might be that he was doing his part to save the face of his department, which had produced the faulty wiper assemblies. If this had been the case, the point is that he *cared* about the face of his department and was committed to *that*. In either case, the key point is that he was committed to something other than a paycheck. But in being so committed, he suboptimized—at least, according to the utilitarian assumptions of orthodox economics.

But it can be shown that the Honda worker's actions were perfectly rational. To begin with, let us suppose that the worker is a utility maximizer. Let us attribute to him an expanded utility function that includes, in addition to the "ordinary" economic utilities—loosely, utilities derived from goods and services that can be purchased in markets—an element dubbed "identity utility" by Akerlof and Kranton [1].

Relative to this expanded notion of utility, our model agent gains *identity* utility when, after having performed an action and reflecting upon it, he looks "good" to himself and/or to "relevant others." If, by contrast, he performs an action that makes him look "bad" to himself or to relevant others, he loses identity utility. The standards against which he performs such audits are moral standards. These moral standards have both subjective (internally experienced) and objective (the empirically observable reactions of relevant others) components. Agents gain or lose identity utility according to whether, and to what extent, they are subjectively (inwardly) *committed* to those standards, or committed to looking "good" to relevant others, or both. In the subjective case, to say that an agent is committed to a moral standard is the same as saying that, if he follows it, he looks "good" to himself and "feels good" as a result, with whatever physiological correlates are associated with "feeling good" about oneself. If he does not follow a standard to which he is inwardly committed, he looks "bad" to himself, feels badly about that, and experiences anxiety, the physical correlates of which are unpleasant. If relevant others are observing, he may feel embarrassment or shame if he does not comply—embarrassment and shame having their own, generally unpleasant physical correlates. Hence, like all the ordinary sources of utility, identity utility involves pleasure and pain, which are at least partially experienced physically.

In this example, we see that identity utility and income utility are separable. The Honda worker's subjective cost in utility, represented by the effort he spent in fixing those wiper blades, was clearly more than offset by the identity utility he derived from doing it. It does not matter whether he was committed to the goals and mission of Honda, as asserted by Peters and Waterman, or was trying to save the "face" of his team. The point is that he gained identity utility from doing the "right thing" relative to some moral standard, irrespective of whether he was paid. Hence, he increased his total utility by fixing those wipers on his way home from work, because the identity utility he gained from doing this exceeded the ordinary economic utility he sacrificed—his time and energy—in so doing.

In what follows, the expanded utility function will be applied to explaining why group methods, in particular, those based on the work of Kurt Lewin [11], are effective in increasing the commitment of Labor to the strategic goals of the Firm. In this explanation, Labor will be shown to be a fully rational actor, even in the absence of material incentives, when it increases its supply of productive effort to serve the interests of the Firm. To do this, the following steps are taken:

(1) First, a summary of Lewin's method is presented. (Section II)
(2) Following that, a statement and analysis of a meta-norm—the "trust conditions"—is presented and used to show why Lewin's methods work when applied to rational agents. (Section III)
(3) Next, a simple "net utility function" will be stated, and first-order conditions will be derived from it. (Section IV)
(4) From the first-order conditions, a simple differential equation will be derived that will show how changing Labor's moral commitments affects its productive output. From this basis, the efficacy of Lewin's method will be explained. (Section IV)

(5) Next, what is called here the Fundamental Principle of Engagement is formulated and stated, along with the proposition that it can maximize Labor's productive effort supply, subject to some other constraints. (Sections V and VI)
(6) Finally, a brief discussion of "bad," "good," and "better" bosses is presented. The Fundamental Principle of Engagement is used to discriminate between "good" and "better" bosses, and a direction for researching this matter is suggested. (Section VII)

II. LEWIN'S GROUP METHOD

Every social organization is characterized by what might be termed a "local moral order" (LMO). Embedded in this order are many norms, mostly unstated, but generally understood by "members." In a work group, these norms are conditioned by at least two forces: One consists of management expectations. The other consists of peer group standards, which are the outputs of decisions made by workers as to what is a fair day's work for a day's pay, subject to the constraints of management expectations, surveillance, and mechanisms of enforcement.

The question addressed by Kurt Lewin, in his seminal paper, "Frontiers in Group Dynamics" [10] was that of how to change peer group standards in such a way as to improve worker output, and then to stabilize this new, presumably higher output level. One obvious way might be to just present the workers with a new, higher set of expectations, tell them to implement them, to surveil them, and to follow up with rewards and punishments to assure compliance. Another way is through what he called a "group discussion." Lewin contrasted these two forms of "training" as follows:

- A *lecture*, i.e., a formal presentation aimed at informing the recipients of training as to what to believe, how to do something, and why they should believe or do it.
- A *group discussion*, in which, with the help of a facilitator, the members would reason out amongst themselves what to believe is true and right, how best to do something, and why they should do it. ([12], pp. 229-30)

If the recipients of training change what they believe they *should* do or *should* believe, then this would be a change in their standards of what is true and desirable, i.e., a change in their LMO, their local moral order. This includes its internal, subjective correlates and its expression in overt acts, conducted under the surveillance of relevant others (i.e., their peers and managers). Going forward, they would evaluate their actions, using these new standards, and gain or lose identity utility accordingly. Presumably, if the group agreed on a new set of standards that would result in higher output, it would become committed to these standards, enforce them amongst one another, and in at least some cases, members would be subjectively (i.e., internally) committed to them. They would do what they do, not just because they were told, but because they believed that these were the "right things to do." With or without managerial surveillance, they would be their own regulators. When this stage is reached, the system would be stable, relative to this new LMO.

Lewin preferred the second of these two approaches. In support of it, he cited the following, simple example: Two groups of mothers were presented with information about the benefits of fresh milk. (This experiment took place in the 1940s.) The first group was presented a "good" lecture on this topic. The second group took part in a discussion leading step by step to the decision to increase milk consumption. Lewin was careful to point out that pressure by the facilitator was

intentionally avoided. He added that the amount of time used by the two groups was equal. The results, after two and four weeks, respectively, were telling, as illustrated in Table 1:

Table 1

Time Lapse	2 Weeks	4 Weeks
Lecture Method	10-15%	10-15%
Group Method	40%	50%

Clearly, the group discussion approach was more effective. But *why* did it work?

III. THE TRUST CONDITIONS

To address this question, let us begin by equipping our model agent with an expanded utility function and in addition, with a preference that is proposed here to be transcultural: The Trust Preference. In general, an "agent" will be trusted if he or she meets the following conditions:

The Trust Conditions

- The agent's actions and accounts are mutually consistent (also known as "integrity")
- Over time and in varying circumstances, the agent's accounts are mutually consistent (in other words, the agent has identifiable "principles" and continuously observes them)

With these definitions in hand, research and theory ([6], [7], [4], [5, especially pp. 116-185], [15] [19], [23]) and common sense strongly suggest that human beings have a trust preference.

Trust Preference:

When given a choice, agents prefer to affiliate with people they trust over those they do not trust. Knowing this, they prefer to be regarded by significant others as trustworthy. In the service of this aim, human agents *are inclined to exert effort into complying with the Trust Conditions, i.e., to make their words and actions consistent, and to show that they "have principles."*

It could be argued that people violate the Trust Conditions every day. But consider: Billions of people in this world yearn to be wealthy. Most of them are not wealthy and never will be. Does that mean they do not prefer having more money to less? The same holds for the Trust Preference. People prefer to be trusted. Trust makes it easier for them to secure acceptance and cooperation from other people. Being distrusted makes it more difficult to secure the cooperation and acceptance of others. Being distrusted makes people look bad, to at least someone, and presumably to themselves. They prefer to look good. Thus, it is reasonable to conclude that people prefer more trust to less and gain or lose identity utility as they are successful (or not) in satisfying the Trust Conditions. In the service of this preference, even the clumsy and the slothful, not to mention con artists, *exert effort to make their words and deeds match, and to show consistency relative to*

their espoused principles. By the foregoing arguments, this preference is rational, because it minimizes their costs in securing the cooperation of others.

Let us now apply the Trust Preference to the mothers in Lewin's experiment. They were provided with a compelling narrative—a "vision" of the future—that was compelling precisely because it benefited their children, and because mothers presumably care about the well-being of their children. Since the intervention was interactive by design, the participants took turns at talk and made statements in the presence of one another and the facilitator that they "should" provide their children with fresh milk. In making what were in effect promises to change their policies about fresh milk, they not only became accountable to the other participants, but—assuming that their statements were "sincere"—became accountable to *themselves*. The internalized pressure to follow the "fresh milk policy" clearly varied between them, since not all of those mothers followed through, as shown by Lewin's table of results. One obvious inference is that the mothers who did not comply may have lost identity utility, but not enough to offset the savings in effort and possibly money that would have been involved in switching to fresh milk.

Lewin did not specify whether the mothers in this experiment had anything to do with one another after the event. Perhaps they were strangers who would afterwards have little or nothing to do with each other. On the other hand, if they had shown up at the same place on a regular basis and discussed their practices, would significantly *more* than 50% of them have been feeding their children fresh milk 4 weeks later? In this case, would they have looked "bad" to their peers if they did not? Some might have lost more identity utility from *not* following this policy than their withheld efforts (and possibly the incremental costs of fresh milk) would have been worth to them. To avoid this, they would have been inclined to change their practices on the feeding of fresh milk to their children. In this case, we may surmise that the percentage of mothers who complied would have been higher than the figures shown in Table 1.

Suppose that the compelling narrative of these mothers were replaced by a compelling vision of the mutual benefits for Labor and the Firm (a form of "unfreezing" from [12], pp. 229-31). If the policy of fresh milk were replaced by an alternative set of practices and standards of a group of workers aimed at increasing productivity ("change of effort level," from [12] p.231), and if this group held its members accountable for following this alternative set of practices and standards, Lewin's experiment would be an example of using participative methods to increase a peer group standard of productive effort supply. The forces of compliance would come from their peers, their leader, and their internal, subjective pressures to make their deeds consistent with their spoken words. In avoiding losses in identity utility that would come from violating the Trust Conditions, they would, by accretion of precedents [13], produce a visible alternative and presumably more productive LMO ("re-freezing," from [12], p. 231). The new LMO would be the result of a conscious, intentional collaboration of Labor and Management, by way of a compelling, inclusive conversation.

IV. LABOR'S NET UTILITY FUNCTION

Let A be an agent of Labor, and let E be the amount of effort that A expends in working for pay. From this effort, A receives two general kinds of utility: the ordinary economic utilities which can

be satisfied by making purchases with his income, and identity utility, which is derived from looking good to himself and relevant others while "on the job." As the example of the Honda worker shows, these utilities are separable and subject to trade-offs by the agent, A.

Let us refer to the utility gained from A's income as O(E) and the identity utility A derives from his efforts on the job as I(E). If U(E) is the total utility that A derives from his efforts on the job, it can be defined as follows:

$$U(E) = O(E) + I(E) \quad (1)$$

It could be objected at this point that A gains identity utility from his income as well, say, if he bought an expensive car, which would confer status. Status is clearly a form of identity utility, since when people make successful status claims, they feel "good" about themselves, as noted by Veblen [24] in his treatise on "conspicuous consumption." To make (1) a proper sum, let us make a further distinction between identity utility that comes from spending one's income when "off the job" and the identity utility that comes from exerting effort while "on the job." This would make (1) a sum of two independent, non-overlapping terms, which are not only conceptually separable, but also separable in time and space [9].

To attain this utility, A must exert sufficient effort, E_{min}, to meet or exceed the Firm's minimum requirements, since otherwise he will not be paid (or even have a job). On the other hand, in a given work period, E is bounded above by one, since A cannot give more than 100% of the time and energy he has available. So, the value of E in (1) must be in the range, $(E_{min}, 1)$.

The effort A exerts on the job, E, is not costless. The cost of this effort, C(E), will be assumed to be an increasing function, with C'(E) and C''(E) > 0. The second term reflects that, as A supplies more effort, his marginal costs increase.

With these definitions in place, we define the *net utility* of A's efforts on the job as follows [9]:

$$N(E) = O(E) + I(E) - C(E) \quad (2)$$

A will increase his effort supply as long as N(E) > 0. We know that $N(E_{min})$ is greater than zero, because otherwise A would not work for the Firm. Thus, on some range, (E_{min}, E^*), N(E) is an increasing function. To find E*, which would also maximize N(E), we differentiate (2) and set N′(E)=0, obtaining

$$O'(E^*) + I'(E^*) = C'(E^*) \quad (3)$$

for some E* on $(E_{min}, 1)$. An argument for the continuity of I(E) and hence, its differentiability is provided in [8, p. 6]. Note that, at effort level E*, the amount of potential productive effort left on the table is 1-E*. From the standpoint of the Firm, the question becomes, can a higher level of E, such that E > E* be reached?

There are only two ways, based on Eq. (3), for that to happen. One approach would be for the Firm to supply incentives, for example, by increasing piece-rates for factory workers or increasing

incentives for salespeople. This would increase O′(E) in (3) to a higher value, say $O_1'(E^*) > O'(E^*)$. In this case,

$$O_1'(E^*) + I'(E^*) > C'(E^*) \tag{3a}$$

At E*, N′(E) > 0, and since N(E) is increasing on (E_{min}, E*), A would increase E from E* to some E** > E* in order to restore optimality, because C′ is an increasing function. In plain English, A would be induced to supply more productive effort, E, if he were paid more to do so.

The other way to increase E is to "somehow" increase the identity utility part of Eq. (3). One approach to this "somehow" was discussed in the last two sections. That is, A's utility function would have to be increased so that its derivative, $I_1'(E^*) > I'(E^*)$. To simplify the math and to show the practical significance of increasing I′(E*) to $I_1'(E^*)$, let us assume that A's income O(E) is held constant on some region of E around E*. This would be the case if A were paid a fixed salary or wage without production incentives, and if A's anticipation of an increase in pay in the indeterminate future were ignored. On this range, O′(E) = 0. Then the first order condition of Eq. (3) reduces to

$$I'(E^*) = C'(E^*) \tag{3b}$$

at optimality. If A's identity utility function I'(E*) were changed so that $I_1'(E^*) > I'(E^*)$, then on analogy with (3a), A would increase his supply of productive effort from E* to some higher value, E**, to restore optimality. This is because $I_1'(E) > C'(E)$ for E < E**. In plain English, A would be induced to supply more productive effort, E, if he felt better about himself in so doing, and if this "feel-good" exceeded the sacrifice in utility incurred by his extra effort. In practical terms, his commitment to the goals of the Firm would have been increased. He would look "good" to himself and relevant others if he supplied E** and would look "bad" to himself and relevant others if he supplied *less* than that. The question is, would he suffer a *net loss in utility* if he supplied *less than* E**?

I propose that *if* $I_1'(E^{**})$ is fixed and if $I_1'(E^*) > I'(E^*)$, A would *lose* net utility, hence total utility, by recurring to the original optimum, E*, or to any other E < E**. To show this, differentiate Eq. (2), set O′(E) = 0, and take differentials. If A is currently working at effort level E**, and is subjectively committed to that, then for E on (E*, E**),

$$dN(E^{**}) = [I_1'(E) - C'(E)]dE \tag{4}$$

For any E on this range, dE = E – E** < 0 and $I_1'(E) > C'(E)$. The bracketed term in (4) is positive, while dE is negative, and hence dN(E**) is negative for any value of E < E**. In plain English, A would lose net utility if he were committed to effort level E** and then supplied less than this.

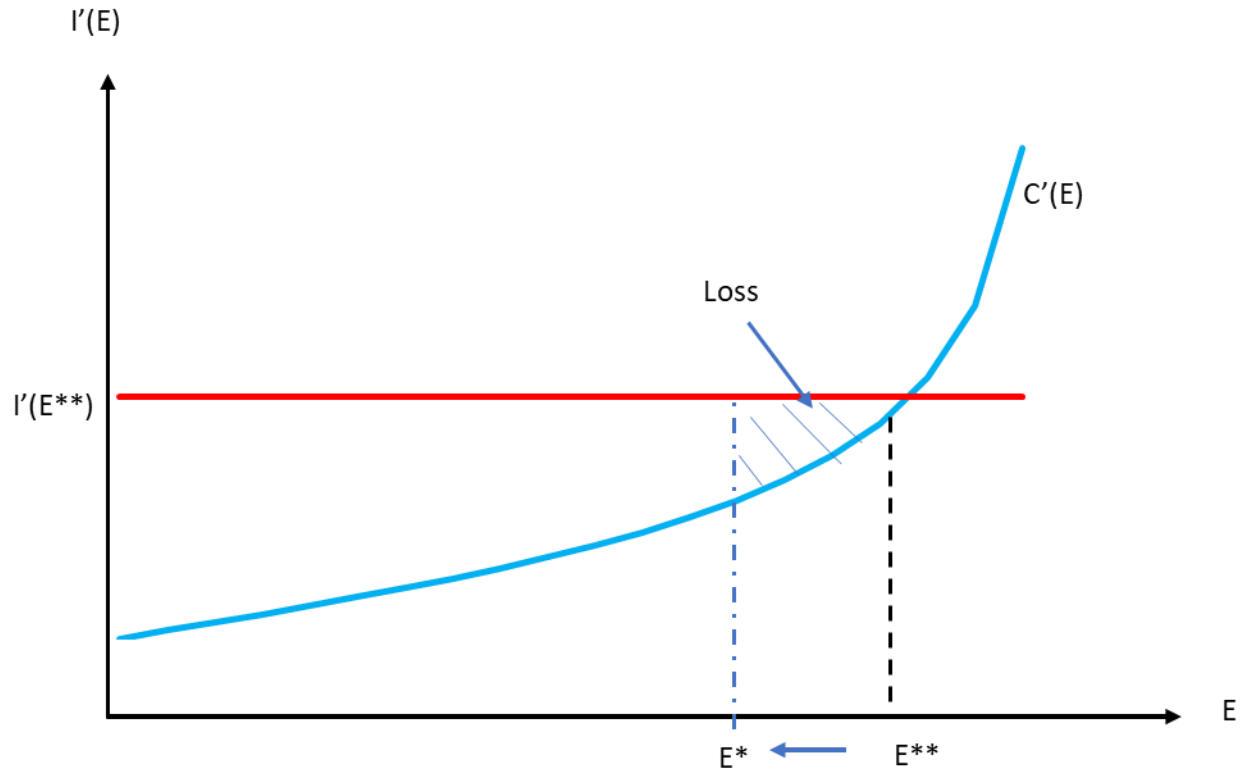
In our analysis of Lewin's group decision method, it was shown that the result of it was to replace an original LMO (peer group standard) with another, more productive LMO. Eq. (4) explains why, once a new LMO is formed, it will be stable. Having "spoken" it into existence in the group discussions, A would lose "face," i.e., identity utility, if he decided to slack off and recur to the normative standards of the old LMO. On the other hand, the utility he recovered from withholding

effort would be worth less than the lost identity utility that comes from exerting less effort, or from "slacking."

A's maximization of his net utility, N(E**) is analogous to the profit maximization theorem of microeconomics. To show this, let us make the simplifying assumption that the "revenue" to A is given by the amount of identity utility represented by exerting effort level E**. In the graph shown in Figure 1 this is denoted by I′(E**). To justify representing it as a horizontal line, we make the simplifying assumption that Labor decides at the beginning of its work period how hard it plans to work. It decides on effort level E**. The identity utility that A derives from this level of effort is I(E**), and the marginal revenue of this effort at the point E** is I′(E**)—the equivalent of "price" in a profit maximization exercise for a competitive firm. The cost of attaining this revenue is the sacrificed utility in effort given by C(E**). In the graph, the marginal cost of this effort is denoted C′(E), which is assumed to increase throughout its range.

The net utility is given by difference between I′(E) and C′(E), which is mathematically equivalent to maximizing the profit of the Firm, where marginal revenue equals marginal cost. This maximum is reached when E = E**. The region between the revenue and cost curves is denoted "surplus" in Figure 1. If I′(E**) is held constant—that is, if A's commitment to the Firm's goals stays unchanged, he would lose net utility from reducing his effort to any level below E**. By moving to the left of E**, he would cut off some of the area on the right-hand side of the region of surplus. Visually, the "surplus" area between I′(E**) and C′*(E) would become smaller.

Figure 1



Thus, with some caveats about to be discussed, Lewin's method works if Labor has a Trust Preference and maximizes its utility by way of the expanded utility function presented here. That is , Lewin's methods work—when they *do* work—precisely because Labor is "rational."

V. THE FUNDAMENTAL PRINCIPLE OF ENGAGEMENT

Two studies by the Gallup Organization ([2], [3]) proposed, based on hundreds of thousands of data points, that companies with highly engaged employees are significantly more profitable than those with low engagement. In these studies, the outcome of greater engagement is greater commitment, on Labor's part, to the goals of the Firm. Gallup used a set of twelve variables to measure engagement. Here, however, only one measure of engagement is proposed: *Is Labor engaged in an ongoing conversation about how best to do its work, based on the relationship between its work and the well-being of the Firm?* For consider Lewin's approach: If Labor directly and publicly "speaks" about these matters—and is taken "seriously" when it does so—the Trust Preference implies that Labor will be compelled, on pain of losing identity utility, to execute what it says it "should" do. Prima facie, this type of engagement would have a greater impact on productive effort supply than say, belonging to a company bowling league.

A notable illustration of the value of engagement is the success of Toyota. In this company, as well as many other Japanese companies [16], workers at the "shop floor" level are continuously engaged in ongoing conversations about "process improvement," using statistical methods inspired by W. Edwards Deming [25] as well as methods developed by Toyota over the past seventy years. Workers' involvement in this conversation consists of analyzing quality problems, finding their root causes, or finding waste in their work processes, and then reaching consensus on the best way to eliminate or mitigate them. By doing so, they cut defects and rework and drop wasteful activities, thereby increasing the net output of their efforts.

Participating in these conversations requires effort. At Toyota, this effort is invested, during end-of-day "quality circle" meetings, in which the results of the previous day or week are reviewed by workers and their supervisors [14]. When procedures aimed at improving quality are decided, generally by consensus, the workers themselves *write* modified instructions. These are followed by all work shifts until further notice. That is, the assembly-line workers at Toyota compose, or perhaps more accurately, co-author their own process instructions. As Liker, author of *The Toyota Way* put it, "The Toyota Way is to enable those doing the work to design and build in quality by *writing the standardized task procedures themselves*" ([14], p.143; this author's emphasis). By the model developed here, their Trust Preferences incline them to implement these instructions.

These observations suggest that the following principle will press Labor's supply of productive effort towards its maximum:

The Fundamental Principle of Engagement

Labor should take part in deciding the "best way" to do its work up to its level of competency to do so.

This principle flies in the face of the "scientific management" of Frederick Taylor [22], who emphatically argued that decisions as to the "one best way" to work should be taken away from

workers, whom Taylor believed to be disinclined to make these decisions. Instead, these decisions should be the province of a staff of efficiency experts. However, the assembly workers at Toyota—and "shop floor" Labor in general—are intimately familiar with the details and context of their daily work. Based on their knowledge of those details, they have the competence to propose better ways to do *that* work, especially if they are able to "connect the dots" between their work, customer satisfaction, and their company's goals. Toyota's engineers also obsess over efficiency, but they apparently recognize that they cannot "proceduralize everything."

Do shop floor workers at Toyota take part in decision making up to their levels of competency? Whatever that level might be, their participation must be closer to it than a worker at a traditional plant, in which the workers' instructions are produced by industrial engineers and where they have little, if any, opportunity to contribute to or change those instructions.

VI. THE RIGHT TO SPEAK, ITS RELATIONSHIP TO IDENTITY UTILITY, AND LABOR'S PREFERENCE FOR THE FUNDAMENTAL PRINCIPLE OF ENGAGEMENT

In a pioneering paper of the subdiscipline of sociology known as "conversational analysis," Sachs, Schegloff, and Jefferson [18] noted that people value turns at talk enough to "wait in line," as it were, to speak in a conversation. They saw that, in casual conversations, it is overwhelmingly the case that only one person speaks at a time. They saw that the transition from one speaker to another sometimes involves temporary, though brief overlaps (two or more persons speaking at a time). These overlaps are routinely repaired through the use of a number of turn-taking rules, which the authors made the focal point of their paper. For present purposes, the key point is that while one person is speaking, the others are waiting to take their turns at talk. The formation of a queue shows a temporary excess of effective demand over the supply of some good. Thus, the fact that people take turns at talk, and wait in line for them—thereby exerting effort—suggests that they value being listened to (an example of an economic "good"). Implied is that people value the right to speak as an end in itself, even when no other utilities are involved.

The right to speak can be defined as the obligation of some other agent to display the behavioral correlates of "listening" to the speaker. If this display is interpreted by the speaker as an indicator of "respect," she would gain identity utility, if it is assumed that the more respect the agent receives, the greater is her identity utility. Given this assumption, human agents prefer to increase, rather than decrease their rights to speak, as long as it increases their identity utilities. Thus, the right to speak is, considered by itself, a "good." Except for a special case about to be addressed, Labor prefers the Fundamental Principle of Engagement, since this principle would increase its right to speak (in a management decision making process) up to its level of competency—or at least, in that direction, to take part.

The question becomes, under what conditions will this expansion of Labor's right to speak result in a higher value of I′(E*)? In plain English, under what conditions would Labor's participation result in an inner drive to increase output to benefit the Firm? First, Labor and Management would have to agree about what changes would improve the Firm's well-being. Further, they would need to agree that these changes would improve Labor's well-being. With this context in place, Labor's participation in these conversations would be aimed at changes that benefit the Firm. When Labor takes turns at talk in these conversations, the Trust Preference compels it to do what it says it

should do, as in the example of Lewin's mothers and their policies about fresh milk. That is to say, Labor would be committed to these proposed changes by the Trust Conditions, which give power to the publicly spoken word.

Now assume that E maps onto a space of outputs, which will be denoted by P. Current productivity, P*, is a positive function of current productive effort, E*. If productivity were increased to some P** > P*, we take this to mean that E**, the productive effort at P**, is greater than E*. Thus, the result of these conversations is that I′(E*) has increased to a higher value, I_1′(E*). By Eq. (4), Labor will increase its productive effort supply to some E** > E*.

Increasing E from E* to E** does not necessarily involve more "sweat." It could involve a reallocation of effort to more productive applications, without changing the "sweat" factor; it might even reduce it. Labor may be simply getting more leverage from its revised allocation of effort, as a result of the effort it put into "thinking" about it. If E** requires greater diligence and more "thought" than E* did, and results in P** > P*, then it is reasonable to infer that E** > E*, as long as technology is held constant. We would just have to assign a weight to the "mental" effort that would be some multiple of the physical effort. With a suitable multiple of the "mental" vis-à-vis physical effort, P** > P* because E** > E*. Here, E** > E* because of the increase in mental effort, which results in P** > P*.

On the other hand, if an agent of Labor believes that, by taking part in such conversations, he might contribute to a productivity increase that could result in the layoffs of some of his friends (or perhaps himself), he would be disinclined to take part. His gain in identity utility from participation, due to his expanded right to speak, would be more than offset by the projected loss of other utilities that could result from it. This could reduce the net utility of his effort to take part in such conversations to some quantity less than or equal to zero. In such a case, he would either choose to not take part, or else his participation could be lukewarm, or even disingenuous. It should be noted in this connection that Japanese manufacturers did not tend to "fink" when Labor cooperated. They avoided laying off employees in tough times, or as a result of productivity increases, sometimes sacrificing profits to keep the long-term goodwill of Labor [16].

Thus, to guarantee that Labor will take part meaningfully (and honestly) in a group decision process with the Firm, Management must satisfy an expanded version of the Trust Conditions. These can be stated as follows:

Expanded Trust Conditions

- Management's words and deeds are consistent. (It is honest)
- Management's actions are consistent with an identifiable set of principles. (It has principles)
- Management takes Labor's well-being into account when making its decisions. (It cares.)

To the extent that the Firm's management meets these requirements, it is more likely to be trusted by Labor. If Labor trusts the Firm, will its participation in a group decision process be more likely to be sincere, and thereby produce benefits to the Firm? The theory developed here suggests that it would be, because Labor would gain identity utility from taking part in the conversation and then lose identity utility if it did not comply with the results of that conversation.

VII. GOOD, BAD, AND "BETTER" BOSSES

To conclude this paper, let us make a distinction between "bad bosses," "good bosses," and "better bosses." The good boss/bad boss dichotomy is adopted from a celebrated book by Robert Sutton [21], and was treated, using the net utility function presented in this paper, by Johnson [9].

Bad bosses can be summarily characterized as follows: They motivate subordinates through a combination of orders, threats, and rewards. They tell them what to do, and often *how* to do it, regardless of whether they "know better." While his conversation with Labor is sometimes bi-lateral, it is mostly a one-way conversation. This type of boss prefers to make unilateral decisions. They talk, Labor listens and complies. As a caveat it should be noted that these behavioral traits would not necessarily make a bad boss if either (1) the subordinates are unable to perform their jobs without direct guidance, or (2) the organization is so dysfunctional and untrusting that nothing short of this kind of "leadership" will turn it around. Then again, once the organization has made the turn, and if the people working there know how to do their jobs, it may be that the bad boss would become a liability rather than an asset.

Good bosses take actions that increase Labor's commitment to the goals of the Firm. In order for Labor to commit to them, it must first understand the connection between the Firm's well-being and its own. Assuming Labor has been educated about this connection, the next task is to show Labor the alignment between the goals of its particular work unit, for which the boss is accountable, with those of the *joint* well-being of the Firm and Labor. Kathryn Shaw [20] summarized the essence of "good" bosses when she wrote, "Good bosses have some universal traits: they coach and teach and offer insight into the strategy of the firm and the worker's career goals in light of that strategy."

Research conducted since the publication of Sutton's book has produced a growing body of evidence that good bosses get more productivity out of their people than do bad ones. Lazear, Shaw and Stanton [10] performed a study in which it was found that work teams with "good" bosses produced about 10% more than identical work teams with "bad" bosses. Shaw [20] analyzed the results of several recent studies, including the one by Lazear et. al. (of which she was a co-author) and concluded that a good boss could get as much as 50% more output than a bad one.

Among those bosses that can be considered "good," it is reasonable to ask whether and to what extent they practice the Fundamental Principle of Engagement (FPE). Is this also an attribute of "good bosshood"? Might the category of good bosses be further subdivided into those who practice the FPE more, versus less? Would good bosses who were more inclined to practice FPE get better results, and hence be "better bosses" than those who practice it less? This could in principle be decided through detailed investigations of several similar work groups, using ethnographic methods known to sociologists and anthropologists. The source data would consist of the narratives of managers and their subordinates, supported by production statistics.

VIII. CONCLUSION

Based on over three decades of consulting and managerial experience and much research, I suggest that those who practice FPE are likely to get better output than those who do not, though, as noted above, more research is needed.

Such research is not just about satisfying our intellectual curiosity. The quality of life of tens of millions of workers in the US—and billions of workers in this world—is largely determined by the way in which they experience their work, where they spend significant chunks of their waking lives. Their experience of work, in turn, is inextricably intertwined with the kinds of relationships they have with their bosses. Studies by the Gallup Organization ([2], [3]) indicate that at least two thirds of America's workforce are "disengaged" from their work—that is, they are committed to their paychecks, but not to their employers' missions and goals. As Sutton [21, p. 17] put it, people don't leave organizations, they leave their bosses. As research on the impact of "bad," "good," and "better" bosses accumulates, and if it continues to show that traditional "boss" styles are, with few exceptions, less profitable than "good" or "better" boss approaches, can we hope that the world might be made a better place for human "being"? Could the human race be rid, or at least minimize the incidence of bad bosses? If good bosses get better results than bad ones, then, ceteris paribus, those results will show up in higher profit margins, more competitive prices, or both. For this reason, I entertain such hope, for there is no better way of getting something bad out of the world, or something good into it, than to harness the project to avarice.

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