

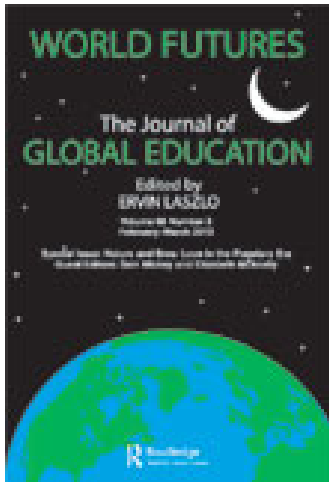
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TRANSFORMATIVE THEORY IN SOCIAL AND ORGANIZATIONAL RESEARCH

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In social and organizational research, theory is conventionally used to *explain* social phenomena. However, theory may be *transformative* in the sense that in using and testing the theory in a practical domain, researchers may attempt to help practitioners transform and improve their social practices and institutions. This idea is illustrated by a research-and-development project in Denmark, headed by the author, which used transformative theory to design professional conferences that are more conducive to participant learning and involvement than is the conventional, lecture-based format. A number of learning techniques were derived from the theory and were tested as hypotheses: When implemented in thirty live conference experiments, did they contribute to learning, as specified by the theory? Used in this manner, transformative theory may supplement the aspirations motivating change agents by some of the well-known qualities of scientific research, including theoretical grounding, a coherent ontology, testable hypotheses, systematic evaluation, external validity, and theory–action consistency.

KEYWORDS: *Action research, conferences, eudaimonia, experiment, human potentials, hypothesis testing, learning, methodology, organizational research, social research, theory, transformative theory.*

INTRODUCTION

The desire to make social and organizational research more relevant to human needs and organizational development has a long history. Action research was born from it (Susman and Evered 1978), and so was the concept of mode-2 research, which pinpoints the increasing interweaving of research and action in the knowledge society (Gibbons et al. 1994). This desire is expressed once and again by book titles such as *Making social science matter: Why social inquiry fails and how it can succeed again* (Flyvbjerg 2001). In organization and management circles, the past two decades have seen a flood of self-searching literature on relevance gone absent without leave (Ghoshal 2005; Editor's Forum 2007).

Recently, various fields of social and organizational inquiry have launched a “design” approach. Here, researchers couch their interest in improving social

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conditions or organizational life in terms of “designs” to be implemented, the research effort being the twin attempts to ground this design in research-based knowledge and to test it in live experiments.

Thus, in “intervention research,” researchers start out by fashioning a detailed design for the social-service intervention to be implemented and evaluated during the research process (Rothman and Thomas 1994). “Design-based research” is the concept of choice for a large group of educational researchers who introduce and test teaching methods and learning environments based on designs, that is, plans for how things could and should be different (Anderson and Shattuck 2012; Cobb et al. 2003). Finally, a group of organization researchers are fashioning a “design science” out of organizational research, taking it out of its traditional business-school confinement and making it relevant to the needs of real managers and organizations (van Aken and Romme 2014; Bate 2007).

In the present article, I wish to add to these efforts by articulating a proactive role for social and organizational theory: that of being a generalizable design, cast as a type of theory called transformative, for use by researchers who, *in their capacity as researchers*, wish to contribute directly to social and organizational transformation (Ackoff, Magidson, and Addison 2006; Baburoglu and Ravn 1992).

For illustration, I shall refer to a particular, problematic domain of practice and show how its practitioners benefitted from a systematic, experimental effort based on such a design-like, transformative, social-organizational theory. The case to be introduced is a research-and-development project conducted by our group at Learning Lab Denmark on the topic of conferences and large meetings (Elsborg and Ravn 2007). Professional conferences suffer from an excess of PowerPoint presentations and a dearth of real learning and knowledge sharing. Central to our project was a transformative theory of the “learning conference” and an associated set of four design principles for learning conferences. From these principles we derived hypotheses for better practice, in the form of seventeen learning techniques that engage conference participants more actively. They were tested in thirty conferences: Do participants actually learn more and get more out of their attendance when we change the conferences as indicated by the design principles and the transformative theory? (For results, see Ravn and Elsborg 2011.)

Of paramount importance when we consider transformative theory is that it needs to be grounded in what we know about human needs and potentials (Ryan and Deci 2012). Just as students of human development, nutrition, mental health, and learning have assumed that their research must help meet human needs, social and organizational researchers can probe foundational, humanistic values and apply them in their transformational efforts in a manner that is consistent and realistic at the same time.

I conclude the article by comparing a six-step research cycle for transformative research with the well-known hypothetico-deductive methodology. They are structurally very similar, but while the latter, traditional method seeks to explain a present state of the world that the researcher has no desire to change, the former proceeds from an image of a desirable future (Ackoff 1974), as encapsulated in the transformative theory, that the research effort is intended to help bring about.

Let me begin by example, our research on conferences, and use it to introduce the distinctive features of transformative theory and research.

RESEARCH ON LEARNING AT CONFERENCES

Informants in the conference industry, personal experience, as well as common anecdotes suggest there are plenty of problems in the typical one-day conference for professional people (to be distinguished from the scholarly conference with hundreds of presentations) (Ravn 2007). The standard format of six or eight PowerPoint presentations per day leaves participants with little time to reflect on the input, let alone discuss it with the other participants. A meager five or ten minutes for Q and A after a presentation is common, and knowledge-sharing is left for three short breaks and a lunch. All this impassive listening produces the well-known seep-out during the early afternoon, when attendees cannot take any more undigested information. One may seriously question the value of attending conferences and ask whether this forbidding, one-way-communication format could, in fact, use an overhaul.

In response to this challenge, my group initiated a research-and-development effort that would study the potentials of viewing a conference as a learning space and test ways to realize these potentials in practice. We recruited five corporate partners in the meeting industry who would supply thirty already-booked and partially planned conferences for us to experiment with. Funding was obtained from the Danish Ministry of Economics and Business (the meeting industry is big business, tens of billions of dollars globally. Many large hotels derive half of their income from meetings and the night stays they generate. Ten thousand doctors descending on a city for five days of conferencing, dining, and shopping leave a massive economic footprint).

We composed a team suitable to intervention and evaluation: Two consultants would help the conference organizers include more learning techniques and participatory processes in the upcoming conferences. A researcher would evaluate their efforts through observation, stakeholder interviews, and surveys of participants' satisfaction after the conferences. As a project leader, the present author would supervise the efforts, while the team as a whole would advance all parts of the research-and-development effort together.

At the outset, the obvious social-scientific research avenue was open to us: Go in and describe the domain, measure its variables and construct a theory that will model, explain or maybe even predict relevant behavior. Do a survey of 1,000 conference participants, observe fifteen conferences and interview fifty participants, twenty managers who send their employees to conferences, and five learning and communications experts. Such empirical work would most likely enable us to put together a model for the professional conference: What a conference typically looks like, what organizers put into it, what participants expect and what they get out of it. We would then write a report presenting our findings, detailing the many problems identified, and wrapping up with two pages of bulleted recommendations for better conferences.

However, this approach did not appeal to us. Along with our meeting industry partners, we had a reasonably clear idea of where things stand in the conference world. A research project that described the problematic present in great detail and suggested a few ideas for change would have suited neither our aspirations nor those of our partners. We wanted a more proactive theory, a kind of systematic understanding of the domain that would help us and our partners create better conferences, pure and simple. Recommendations for action would have to flow directly and explicitly from this theory, rather than being appended as an afterthought. In fact, the research-and-development project should consist in the *very design and testing* of such recommendations. We needed a theory of how to transform a conference from a venue for passive listening to an active learning space.

A TRANSFORMATIVE THEORY FOR THE LEARNING CONFERENCE

Scratch a conference organizer's head and the transmission model of teaching will pop up. Knowledge is held by experts and transmitted to a lay audience through lectures and PowerPoint presentations. The transmission model presumes the individual to be a Lockean blank slate, a Skinnerian black box, an empty vessel to be filled with a teacher's knowledge (Rodriguez 2012).

Of course, modern psychology and educational research have demonstrated that people are far from blank slates. Humans are born with a set of predispositions to specific motor, affective, and cognitive activity; that is, to explore, experiment, and contribute in ways uniquely human. Long unfashionable, theories of human nature are resurfacing (Pinker 2002; Ryan, Kuhl, and Deci 2008). They combine with the Aristotelian idea that the *telos* of existence is *eudaimonia* (Ryan, Huta, and Deci 2008) or human flourishing (Paul, Miller, and Paul 1999); that is, the unfolding and realization of human potentials and talents. Human nature can be conceived of as innate needs, motivators and potentials for action. People are motivated to do for themselves and for others what they do best; they wish to grow, develop and flourish (Flanagan 2007; Eagleton 2007).

On this view, learning is not narrowly about acquiring a stock of knowledge, attitudes, or behaviors; it is empowerment for human flourishing. To learn is to improve our ability to actualize our individual and collective talents and potentials. Through learning, we develop structures in individual or collective consciousness (Ravn 2004)—such as categories, distinctions, concepts, images, and so on—that help us act better in the world (Dewey 1938; Argyris, Putnam, and Smith 1985) and thus may contribute to fulfilling our potential as human beings (Rogers 1961).

If this is human learning, how may we then conceive of a conference? We need to limit one-way communication; it is generally inefficient and goes against most of what we know about natural learning in humans. Let us see a conference as a forum for learning, mutual inspiration, and knowledge-sharing—a collective learning space (Kolb and Kolb 2005). People are active by nature and will want to be active during conferences as well. Unlike empty vessels, participants are brimming with knowledge, ideas, intentions, projects, and things they want to accomplish, on their own or together with people they meet at the conference.

We may, in fact, see the conference as a forum for mutual inspiration and human co-flourishing.

This view of conferences is obviously not a depiction or model or theory of conferences as they are *now*, but as they *could be*. In this sense, it is a transformative theory of conferences, that is, a lens through which the potential inherent in existing conferences may be approximated and articulated as a first step toward helping transform conferences into something more productive and enjoyable. We called it the “learning conference” (Ravn 2007).

For such a conference of the future to become a reality, we needed to be more specific: What characteristics would a learning conference need to have as regards presentations, breaks, receptions, meals, socializing, opportunities for knowledge sharing, and so on? To this end, we formulated four “design principles” (a notion similar to the “construction principles” of Romme and Dammen 2007, 110).

As to presentations (Bligh 2000), they should obviously not be a source of boredom. This leads to our first design principle:

1. Presentations must be few, concise and provocative.

Next, extensive audience passivity should be avoided. Plenty of research (Boud, Keogh, and Walker 1985) has shown that listening without reflection is of limited value in learning. Hence:

2. The conference must provide processes for participants to engage in active interpretation of the input.

Next, people attend conferences on topics that concern them greatly already. If they are given opportunities to discuss their current plans and projects in the light of the new input, they will likely feel empowered and inspired. People learn in their “zones of proximal development” (Vygotsky 1978), that is, where they are just about to go professionally and intellectually:

3. The conference must provide time and opportunities for participants to talk about their own relevant projects.

Finally, the other participants at the conference often represent a pool of experience and knowledge as rich as that of the experts on the podium. They may be seen as a potentially knowledge-sharing, social network (Cross et al. 2001). Access to participants could be worked into the conference format much more explicitly than just providing breaks and free time. Hence, the last design principle:

4. The conference must provide processes that help participants network and share knowledge.

So, for conferences to be forums for learning and human co-flourishing, these four design principles suggest processes conducive to participant involvement

and knowledge sharing—in so far as this is possible in just a day’s worth of conferencing.

Of course, somewhat different design principles could be derived from the concept of a conference as forum of mutual inspiration and human co-flourishing. But these four seem plausible and will suffice for a first piece of research into learning at conferences.

TESTING HYPOTHESES = TRANSFORMING SOCIAL PRACTICES

Let us ask in what sense this concept of a learning conference constitutes a theory, a social-scientific theory. While traditional science would require theory to be about the world *as it is*, the English language certainly does not rule out the very different notion that a theory is about how the world *could be*. Thus, we might say to a conference organizer: “I have a theory of how your conferences could produce far more learning, and let me tell you how . . . ”

As action researchers Peter Reason and William Torbert (2001, 11) put it, “. . . good action theory will offer a normative vision of a better state.” Such a theory is testable through attempts to bring about the state of the world that it stipulates. The theory may be accepted if attempts to implement its various elements in actual practice meet with success, as judged by the stakeholders involved, using appropriate standards. And the theory should be rejected or modified to the extent that it fails to produce the desired outcomes (Baburoglu and Ravn 1992).

A first step to making the theory amenable to implementation is to spell it out in some greater detail, like the four design principles just offered. Each design principle needs some further differentiation that may predict very specific outcomes. For example, design principle no. 2, about the participants’ need to engage in active interpretation of the input presented, may be fleshed out as the expectation that if we let participants discuss the presentation with the person sitting next to them for five minutes midway through the presentation (a “buzz dyad”), the benefit they derive from the presentation will be greater; they will have learned more. This expectation may be tested in an experiment: when the conference host breaks a long presentation and asks participants to do just this, will they afterwards rate their learning outcomes higher?

Expectations thus derived from a reasonably tight conceptual framework and tested in actual experiments may be called hypotheses. Of course, hypothesis testing through implementation and evaluation is not at all a simple matter, but it is a challenge common to all research and a huge field of study is dedicated to it: experimental design (Kirk 2012). The results produced during hypothesis testing will feed back into the design principles and the theory, thus helping us refine both theory and design principles.

In one instance, refinement looked like this. During the repeated use of buzz dyads we observed that academically trained conference participants often chose to spend their five or ten minutes together sharing rather severe critiques of the presentation. This seemed to impede their appreciation of whatever they might get out of it and hence diminish their learning. Toward the end of the project, we proposed to the conference moderators that the buzz dyad should be introduced by

a *constructive* question. For example, “What was the thing that inspired you the most in the presentation, and why?” Our refined hypothesis, yet to be completely tested, is that for academically trained audiences, a buzz dyad should be introduced by such a constructive spin, as it may take people’s minds off nit-picking critiques and focus conversation on the presentation’s learning potential for them personally, thus improving their outcomes. (Bear in mind that none of the conferences in this project were academic. In academia, of course, nit-picking, or critical discourse, is often the source of new discoveries and should not be easily discouraged.)

Such are the very useful reflections occasioned by attempts to implement the various elements of a transformative theory; that is, to test hypotheses derived from it. The theory is not explanatory, but transformative, in the sense that researchers and practitioners may use it to try to transform and improve current practices and institutions.

VALUES AND HUMAN POTENTIALS

Let us address the question of what it means to say that a theory may point to what is better. In any scholarly discourse, these are treacherous waters. Above, the theory of the learning conference emerged from an account of human nature and general human capacities, guided along by the unstated assumption that conferences should help bring out aspects of relevant human potentials, such as our potentials to learn. For conferences to help participants unlock their learning potentials, we argued that they must possess the features identified by the four design principles. In other words, we have a theory that specifies that conferences that conform to our design principles are good, and conferences that do not are bad. How do we align such a blatantly normative—let alone simpleminded—exposition with conventional academic standards of detached reason and neutrality?

A transformative theory is based on the humanistic assumption that bringing out human potentials is a good thing. But how do we distinguish our “good” potentials from our “bad” ones? Indeed, we would not wish for a conference to realize our potentials for being bored, passing time ineffectively or engaging in endless rote learning. So, how to distinguish?

An answer will take us beyond the bounds of this article (but see Ravn 1989). For here, suffice it to say that researchers in many other sciences have little difficulty seeing themselves as working for a common human good. Take the disciplines of obstetrics, human development, pediatrics, nutrition science, nursing, family medicine, pharmacology, clinical psychology, organizational psychology, and educational research. They all proceed from the assumption that human needs and potentials can be studied, and what we learn must help us act in such a way as to bring out the best in human nature.

Social scientists will argue that, well, this may be true in medicine and psychology, but society is not given by human nature. Granted, no direct derivation can be made; blueprints for optimal social institutions cannot be read out of the human genome. But does that amount to saying that nothing in the human constitution has relevance for the way we live, work, and organize our social worlds? Clearly not.

To be sure, philosophers and social scientists have been extremely wary of what has been called the naturalistic fallacy (Hudson 1969): the argument that certain human qualities or states are natural and therefore should be favored in society. Thus, fifty years ago, scholars in the field of International Relations would scoff at the idea that *as scholars*, they could condemn genocide and similar internal affairs of other states. Political scientists could not argue, *as scientists*, that democracy or human rights are a good thing. A group of positivistic legal scholars meeting in Sweden in 1942 (Høilund 1992, 45) could not declare atrocities occurring in Nazi Germany to be unjust, since they were perfectly lawful, for legal scholarship was not about taking stands on moral issues.

But all that is changing. “The notion of human rights is here to stay in international relations” (Forsythe 2006, 25) and human development is increasingly seen as being for everyone (United Nations Publications 2014); indeed, broad humanistic values, anathema in the positivism of yesteryear, are creeping into the social sciences. Human nature, human needs and human potentials must be acknowledged and their expression facilitated, and social scientists today are much more likely to accept their part in this than they were fifty years ago.

Of course, no one can declare *ex cathedra* that practice X is better suited to human nature than practice Y. Such pronouncements are the province of ideology and other systems of fixed ideas. Contrast this with the scientific method, which, while being likewise concerned with systems of ideas, focuses on their continuous improvement through testing, experimentation, evaluation, reflection, and learning. Thus, the claim that practice X is better than practice Y calls for an experiment: “Let’s try out both of them and evaluate them.”

This is commonplace in social policy, where social experiments set up by program administrators are tested every day. When politicians or local government officials institute a labor training program, they often hire a researcher to do the evaluation, using whatever criteria the domain has to offer—all of which boils down to one version or another of “good for people”: user satisfaction, contribution to well-being, quality-of-life indices, health outcomes, and so on. Similarly, economic indicators like cost efficiency simply amount to: “Can we get more user satisfaction out of spending the money differently?” So, having researchers estimate how stakeholders judge a program or an action on a scale from good to poor is nothing special.

However, inserting the values directly into the theory is indeed unusual. It is almost a contradiction in terms. But this is mainly because most scholarship has concerned itself with actualities, not potentials, let alone human potentials. Actualities are factual and devoid of value, whereas potentials are inherently value-laden: It is difficult to identify a potential without implying that it should be realized.

There are individual potentials and there are social potentials. The latter ones concern the capacity of our social systems and institutions for becoming still more conducive to human flourishing. Such potential, future or desirable states of the social world must be included in the social sciences. As Chris Argyris states: “A complete description of reality requires not only a description of the universe

as it is but a description of its potential for significantly reformulating itself (its potential being part of what it is)” (1982, 469).

Potentials fell out of favor when science gradually replaced medieval Aristotelianism. Aristotle’s predilection for seeing potentials everywhere, even in flames desiring to reach toward their natural home in the heavens, rendered potentials suspect in the sciences. Just as fire was later recognized as a chemical process with no mysterious nature actualizing itself in preferred directions, so social phenomena captured by the *physique sociale* of the early nineteenth century, or *sociologie*, as Auguste Comte in 1839 chose to call it, were to be described for what they are, in the actual, not the potential, and without regard for preferred directions, improvements, or values.

Under the influence of scientific mechanicism, the social sciences of the late nineteenth and early twentieth centuries found little room for a human nature with intimations of greatness, potentials waiting to be discovered and made to flourish, natural needs crying for expression and satisfaction. This came later, after World War II, with the humanistic psychology of Rogers (1961) and Maslow (1968), the human resource movement in organizational research, progressive education and reform pedagogy, and the concern with universal human rights and democracy among many political scientists. Some late additions to the academic interest in human potentials are positive psychology (Snyder and Lopez 2002), self-determination theory (Deci and Ryan 2000), and positive organizational scholarship (Cameron and Spreitzer 2013).

Humanistic concerns are evident in social research methodology as well. There is increasing interest in methods that let researchers use their full intellectual powers and act as facilitators and co-designers of real-world experiments with practices and institutions that promise to bring improvements, however small or uncertain, to the quality of people’s lives in society (Flyvbjerg 2001; Reason and Bradbury 2001; Cobb et al. 2003; Mohrman 2007). Let us refocus on how such a method may be conceived.

A TRANSFORMATIVE RESEARCH CYCLE

Let us line up the terms we have used—theory, hypotheses, testing—in the sort of research-cycle list that has fallen completely out of fashion over the past couple of decades (Ackoff 1962, 26), not least because its presumptive logic has been severely deconstructed (Feyerabend 1975). Nevertheless, I wish to compare the present approach with research of a more classical, hypothetico-deductive kind. Of course, the list is a cycle with steps that overlap and reiterate in sub-loops.

1. **Research starts** (or may be seen to start) with a problem, traditionally one of understanding. In a transformative approach, however, the problem is also one of practice. Activities suffer, institutions fail us, human needs go unmet. Some stakeholders wish to act differently and see improvement. In the pragmatic tradition, this starting point for research is commonplace (Dewey 1938). In our

case, the domain is conferences: They do not seem to produce the outcomes organizers want, not enough learning. Attendees are bored. What can we do?

2. **A theory** is fashioned by researchers and practitioners in the domain. Unlike the explanatory or critical powers held by a classical theory, *transformative* potency is of the essence here. When applied and tested, will the theory likely lead to transformation and improvement in the domain? To accomplish this, the theory must depict the potentials and possibilities inherent in the domain, pointing out what could become reality if the relevant actors did their best and all initiatives met with success. Since it is a social-scientific theory, not an ideological tract for unthinking revolution, it must adhere to the conventional standards of rigor, coherence, parsimony and agreement with other research-based knowledge about the domain.

Our transformative theory is the idea that the conference is a forum for human co-flourishing, where people go to find inspiration to work on their projects and bring out their best potentials. The four design principles spell out what this implies for presentations and participant involvement. The designs presupposed by van Aken (2007) and Romme and Dammen (2007) may be taken to imply a theory of this kind.

3. **Derive hypotheses** is the next step. That is, the theory must be operationalized and made applicable in some local domain. Whether explanations or predictions are in conformity with empirical facts is not our focus; rather, the transformative theory will serve as a guide to the action that the stakeholders wish to take. The hypotheses are such specific guides: “When we do X, we expect outcome Y.” Social experimentation being something of an art, these hypotheses are generally far from well-formed and would hardly meet the requirements of positivist research methodology. But less than that will do. They just need to be reasonably clear and distinct expectations about the results of action, put in words and written down before the actions are taken—so as to prevent the *post hoc* rationalizations that impede learning.

Before each of the thirty conferences, our facilitators met with the relevant conference organizers, listened to their needs and negotiated techniques and designs that both parties hope will deliver better outcomes. Each design element or meeting technique is chosen for a reason, which is expressed as an expectation of the outcome it will produce. These expectations are hypotheses, and they were noted in a log before the conference.

4. **Act as specified by hypotheses.** In explanatory or critical research, there is no practical action. A researcher forms a hypothesis (the previous step, step 3) and collects data to see if she was right (the following step, step 5). In transformative research, however, passive knowledge about the present is not enough; we would like to know—in very active and pragmatic terms—how to make the future better than the present. Thus, we act as prescribed by the hypotheses. We do X, hoping to obtain outcome Y.

In every one of the thirty conferences, we implemented a number of learning processes, which, as expressed in the hypotheses, were intended to improve learning and other desired outcomes.

5. **Testing and evaluation.** Conventional data collection and analysis will determine the fit between hypothesis and reality. In transformative terms, we ask whether the learning processes that were implemented produced the desired outcomes, individually or collectively. Obviously, effects of the different actions and interventions are difficult to tease out, and the usual problems of (especially internal) validity are present here in abundance.

Evaluation was the job for our researcher. A survey of 3,000 participants and participant observation of all 30 conferences were primary data sources. Continuous conversation, interpretation, and reflection with the rest of the team and with partners during and after each conference yielded further insights. Some of these insights were used by the facilitators to change their further practice in the projects, much in the way that action research and other collaborative and reflective kinds of research allow continuous learning and improvement during the project.

6. **Generalization.** Traditionally, researchers decide whether the theory needs to be modified in light of the hypothesis testing, so as to increase its generalizability, or specificity. Using a transformative approach, our ambitions are the same: we would like to know whether the actions specified in our hypotheses would generate similar results in other situations.

This scientific ambition conflicted with our pragmatic intention to help organizers of a given conference create a success. To be effective at one conference, we often had to deviate from the general formulation of a hypothesis and make suitable adaptations, making it harder to learn and generalize to other cases. However, the fact of this conflict is trivial: learning from everyday experience requires the same balancing of the general and the specific.

These six interlocking and overlapping steps represent a concern with identifying potentials for action and acting accordingly, learning as much as possible about our prospects for further action later. Transformative research exploits many of the elements of classical research, but modifies them to suit the purpose: That of identifying realistic trajectories for human and social development and start a systematic, reflective, experimental process with major action/theory interaction, all designed to help improve social institutions and human practices in the domain as well as the quality of the stakeholders' lives.

RESEARCH VERSUS CHANGE AGENCY

It may be argued that the process described is nothing more than regular, sound advice for practical action. Is this not what any change agent, consultant, or manager intends to do? Every stakeholder can dream up a better state for his system, try to bring it about, and do some evaluation along the way. Why call it research?

In response, consider the following features that distinguish the transformative research process from ordinary, well-informed action:

- **General theory.** We require a theory that purports to cover the domain *in general*. A change agent's primary desire is to have his *own* organization work and cares more for particulars than generalizations.
- **Coherent ontology.** The theory is grounded in an ontology, a wider understanding or coherent view of human nature, social institutions, democracy, justice, and so on, that must be in agreement with (at least some) scholarly thinking. We rule out artistic-creative, ideological, religious, or private visions that are out of line with what is known about human development and the prospects for societal betterment.
- **The theory yields testable hypotheses.** A transformative theory identifies potentials for human and social development. Precisely how these potentials may be realized is what we express in a hypothesis. A hypothesis is the conjecture that "If we do X, effect Y will occur." Such a hypothesis is testable: Do X in many similar or different situations, and see if Y happens.
- **Systematic evaluation of hypotheses.** The actions taken are evaluated systematically by researchers and the domain's stakeholders. Did they produce the expected and desired effects? In comparison, managers and change agents are usually too busy to spend much time systematically evaluating the changes they introduce.
- **External validity.** The evaluations produced by researchers and stakeholders are fed back to improve and modify the theory, thus making it more precise in its applicability (external validity). Managers and change agents will wish to use evaluations to learn about their particular system, whereas the concern with generalizability is a hallmark of scientific research.
- **Theory-action consistency.** Through the medium of the testable hypothesis, actions are kept aligned with theory. While consultants and managers will happily change strategy the second it is called for, a transformative researcher has an obligation to theory or general understanding and wants to preserve the integrity of theory or at least modify it with eyes wide open. Theory must lead to effective action, but action should not proceed unthinkingly.

In sum, transformative research is not just well-informed action, as it stresses theoretical comprehensiveness and generalizability, theory-action consistency and systematic, empirical checking and evaluation—ideally, in a continuous cycle of still more sophisticated knowledge and effective action, empowering the actors in the domain with "action knowledge" (Ravn 2004).

CONCLUSIONS

The case of research into better conferences with more learning was used to illustrate the idea that a social-scientific theory can be a prescription for a better future, not just a description of the present. Such a transformative theory suggests that, proceeding from knowledge of the human potentials relevant to the domain (in our case, human learning), we may take certain actions to improve practices and institutions in the domain. Because these action recommendations are derived from the theory and are thus testable, they amount to what is known in classical

scientific methodology as hypotheses. Once acted on, the hypothesis claiming that if you do X, the result will be Y, can be evaluated by checking if result Y does actually occur when X is implemented.

Of course, transformative research is about changing things for the better, not just changing them any which way. So, the hypotheses are always a prediction that certain good results will ensue—otherwise, why bother to take the action? Whether the produced consequences of the actions taken are indeed favorable is left for the stakeholders of the domain to assess, using whatever criteria are appropriate, whether subjective, like user satisfaction and quality of life indices, or more objective, like health indicators, fairness of distribution (Gini coefficients), cost efficiency, or the like. The whole process is carefully guided and monitored by reflective researchers ensuring maximum validity.

The key idea here is also the most difficult: that a social-scientific theory is not necessarily about a current, probably messy and problematic state of the world, but about a future and desirable state of the world. To understand this, we must switch from the classical philosophical view of knowledge as representational—to a pragmatic view of knowledge as action-oriented. If knowledge is what helps us act intelligently in the world, and not just a set of somewhat static representations in our minds of an external world, a social-scientific theory could do just the same: help us act better in the world so as to create a desirable future for everyone involved—in a systematic and well-planned effort that is constantly monitored and evaluated in repeated experiments, because that is what science is about.

This pragmatic orientation in research methodology could help overcome the all-too-common *coitus interruptus* of social and organizational research: the research report that describes serious interpersonal or institutional problems and leaves them for others to address, or tosses a smattering of recommendations of dubious origin at the reader on the very last pages with no indication of how to make use of them.

While many social researchers are involved in micro-level and practice-oriented research that has obvious implications for social policy and organizational life, overall concepts of what social-scientific theory is must be examined and developed, so that they serve the socially responsible intentions harbored by many researchers. Society truly needs the contributions of astute and disciplined social scientists that engage in theory-grounded, experimental, and systematic efforts to implement and evaluate changes explicitly intended to produce social or organizational betterment.

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