

## **Transforming Inquiry and Action**

### **By Interweaving 27 Flavors of Action Research**

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#### **Abstract**

Beginning from an overview of the wide variety of action research methods illustrated in the recent *Handbook of Action Research*, this article presents a model of 27 "flavors" of action research. This model highlights how narrow a segment of reality is studied by empirical positivist and most qualitative research, as well as how fundamentally different the first- and second-person participatory study of the present and the future is from the third-person detached

study of the past. Although we show that action research has multiple aims, including personal integrity and social mutuality, we also argue that action research studies that include a greater proportion of the 27 types of methods are likely to account for higher proportions of the total variance in situations than empirical positivist studies typically do, and we illustrate this argument with a review of one particular study.

## **Transforming Inquiry and Action**

### **By Interweaving 27 Flavors of Action Research**

Beginning from an overview of the wide variety of action research methods illustrated in the recent *Handbook of Action Research* (Reason & Bradbury, 2001), this article presents a model of 27 "flavors" of action research. This model highlights how narrow a segment of reality is studied by empirical positivist and most qualitative research, as well as how fundamentally different the participatory study of the present and the future is from the detached study of the past. We argue that action research studies that include a greater proportion of the 27 types of methods are likely to account for higher proportions of the total variance in situations than empirical positivist studies typically do, and we illustrate this argument with a review of one particular study. At the same time, we suggest that action-research aims toward more ends than descriptively explaining variance. As a first-person practice, it aims toward greater congruity between the values one espouses and the values one enacts. As a second-person practice, it aims toward conditions of greater trust and mutuality among co-participants.

Commentators on the *Handbook of Action Research*, including Karl Weick and Ken and Mary Gergen, have suggested that the way this handbook presents action research "has the potential to transform the very idea of social science (from back of Handbook dustcover)." One way of encapsulating briefly how this is so is to point out that the handbook presents action research, neither primarily as an applied positivistic science that feeds back financial, survey, and other data into a policy or strategic decision process, nor primarily as an interpretive, phenomenological science that invites self-critical consciousness on the part of persons and institutions. Instead, the handbook presents action research more as an "action science" (Torbert, 1976, 1997; Argyris, Putnam & Smith, 1985; Friedman, 2001; Rudolph, Foldy and Taylor, 2001).

What is action science? The term "action science" is not broadly recognized in academic or practitioner circles. The methods that constitute the core of cooperative "action science" inquiry are not impersonal disembodied methods, but rather personal embodied disciplines of simultaneous research and practice among others on line in the present and for the future, not just about the

past (Heron, 1996; Reason, 1994; Sherman & Torbert, 2000; Torbert, 1991). Such research practices include various forms of first-person self-observation in action, which can inform, amend, and transform one's own leadership initiatives, as well as, second-person collaborative inquiry that can influence a team's vision, strategy, and/or performance. This participatory action inquiry approach comes to the fore in the *Handbook of Action Research*. Many chapters offer and analyze vivid examples of such participative inquiry at the personal, group, organizational, and societal scales (see, for example, the chapters by Bell, Ludema et al, Schein, Torbert, Gordon, Heron, Lykes, Swantz et al, and Marshall in Reason & Bradbury, 2001).

As one reads through the *Handbook of Action Research*, one encounters an almost bewildering variety of types of research. There is research on the past, in the present, and for the future. There is research on one's own first-person practice, among a group on its common, second-person practice, and within wider collectivities on their third-person conditions, preferences, and practices. (This distinction among first-, second-, and third-persons is similar to that made in grammar, except that what is called "first-person plural" in grammar is here included within the second-person realm when the distinctive practices are directly accessible to one another as in "we, a family living in the same home." "We" is considered in the third person realm when many people engage in mediated practices, as in "We, Americans voting in a national election.")

The different types of research in the *Handbook of Action Research* also differ according to the voice in which they are conducted and offered -- sometimes in a frankly subjective first-person voice, sometimes in multiple intersubjective voices (second-person), and sometimes in an anonymous, generalized voice (third-person), such as the sentences you are reading here. A single social scientist conducting instrument-mediated research on others and reporting the results in a scientific journal typically does so in a third-person voice.

From this variety of times, voices, and practices, we can construct a 3x3x3 table (past/present/future x subjective/multiple/generalized voices x 1<sup>st</sup>/2<sup>nd</sup>/3<sup>rd</sup>-person practice). Such a table shows 27 possible types of research/practice disciplines (see Figure1 below).

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(Place Figure 1 About Here)

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Why should we want to construct such a table? First of all, the result can help to order the types of research found in the *Handbook of Action Research*, as we will indicate throughout this article. Second, the table can help us to see how large a part of the potential research spectrum currently dominant research paradigms leave unexplored. Virtually all of empirical positivism, the paradigm within which the overwhelming majority of all academic natural and social science is conducted, fits primarily within one part of one of the 27 possible types of research. That is, its methods seek to justify a generalized 3<sup>rd</sup> person voice about generalized 3<sup>rd</sup> person practices in the past, and in doing so these methods do not encourage, indeed they systematically filter out, first- and

second-person research by the researchers on their own practices and on the interaction between their practices and those of the subjects they are focusing upon.

One may argue that empirical positivism, especially when enhanced by qualitative, clinical, case research, studies first- and second-person practices (e.g. leadership, group dynamics, etc.) as well. This is partially true, but in so doing it still filters out, and discourages by omission, first- and second-person research by the researchers and by the participants, and in general holds that its probabilistic, statistical generalizations will not necessarily hold in individual cases. Thus, if we grant that empirical positivism studies approximately half the material available in each of the three domains of third-person research on first-, second-, and third-person practice in the past (see yellow-shaded spaces in Figure 2), then empirical positivism can be said to cover  $3/54$  or about 6% of the entire social science action/research spectrum. Given this perspective, it hardly remains a mystery why so many empirical positivist hypotheses yield statistically insignificant results and why so few of the results that are statistically significant account for more than 5-15% of the variance. The map of the 27 flavors of action research highlights a wide field of methods that deserve explicit definition and development by forthcoming generations.

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(Place Figure 2 about here - "27 Flavors of Action Research & the Proportion of the Research Spectrum Studied through Empirical Positivist Methods") diagonal diagram.

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A third and even more important reason why we may want to clarify the range of research options available to us is that everything we ourselves wish to get done in life depends on engaging in a much wider range of the research/practice disciplines. One way of explaining this claim is to say that if we assume, for the sake of argument, that a given theoretical proposition has received sufficient support to warrant our acting on it in real-time, the question remains whether and how we actually do so when the time comes. Do we, and how do we, develop a quality of first-person inquiry/awareness that remembers our intent at the critical moment? No amount of third-person research on the past helps in this task; only one's own first-person research on oneself in the present can accomplish this trick.

Next, if we assume, for the sake of argument, that we have remembered our intent, how can we tell whether we are actually having the influence on others we intend to have through our action, or whether we need to try a new tactic, or redesign our strategy, or explore how our own intent and others' can become more aligned? If we wish to have the capacity to test and potentially transform our efficacy within a given session or time period, we must exercise second-person research skills that create the trust to generate valid data in real-time about our initiative, in the midst of potential conflicts of interest and power differentials among co-participants (e.g. the Israeli-Palestinian situation). Among their other uses in helping us frame and achieve worthy goals, these first- and second-person research/practice skills in the present can also be used to test the

validity in this particular situation of the third-person generalizations we have brought to the setting.

The foregoing discussion assumes, in turn, that our intent throughout our study and action is clear, stable, and unvaryingly motivating. But of course, in reality, except for the monomaniacal 'true believers' among us, we each struggle during the course of our days and our lifetimes with varying, fragmented intentions, with questions of priority and timing, and at times with feelings of total lack of intention, or of intention weaker than circumstances. So, research on what we (individually, communally, and collectively) wish for the future and on how to forward-design our meetings, projects, and lives with others, in order both to continue asking such questions in the most fruitful ways and to realize our wishes in mutually sustainable ways, opens up another whole dimension of action/research critical to our lives, yet essentially unexplored by the science of the past five centuries. (Plato and Aristotle initiated a long tradition of philosophical inquiry into the general nature of the good life and the just society, but such philosophical inquiry has rarely been sufficiently operationalized to apply to specific situations and events.)

The implication of the foregoing argument is that engaging in more of the 27 types of research in Figure 1 in a given situation will increase the likelihood both of discovering more of what is really true in that situation (including participants' intentions, strategies, and behavioral patterns) and of achieving what we wish. (Let us re-emphasize here that this is not an argument against empirical positivist third-person research on the past, but rather an argument for interweaving first-, second-, and third-person research/practice on the past, the present, and the future.) After first offering some illustrations of first-, second-, and third-person research/practice, relying primarily on the *Handbook of Action Research*, we will then review a study that combines multiple types of action research in support of the intent to generate successful organization transformation projects.

### **First-Person Research on First-Person Practice**

In the case of first-person research on first-person practice in the present, we ourselves (this article's authors) use various methods to research our own practice in real time. For example, we may tape record our actions in work meetings (with all participants' consent), sometimes listening to the process by which a decision has been made immediately afterward, and then sometimes acknowledging ineffective behavior, acting differently, and renegotiating the decision right after that. This example combines a third-person method (the tape recording) with a second-person feedback and reflection method, culminating in first-person experiments with changed behavior. We may also use internal first-person methods for widening and deepening our own awareness so that it is not limited to and implicitly identified with, the mental voice in one's own mind now, nor to one's current mood or current practices. One such method is to seek simultaneous contact with four distinct "territories of experience" (Torbert, 1973, 1991) whenever "I" can remember to do so:

- 1) contact with the sound, touch, and color of the world outside oneself (try noting these features now for a moment);
- 2) contact with one's breathing and other inner bodily sensations (e.g. the sensation from the inside of actually touching whatever is currently supporting me; you can try this now);
- 3) contact with one's emergent thinking and feeling (can I/you 'listen' to all three types of experience at once now?); and
- 4) contact with the dynamics of one's very attention as it accordions out to include all four of these "territories of experience" momentarily now, or in to focus on just one (the thinking involved in interpreting these words?)

Doing this exercise (not just reading and thinking about the foregoing words) almost invariably transforms one's awareness (momentarily), showing how immersed one was the moment before in but one of the 'territories' (e.g. the mental world of the meaning of these words). With repeated practice, sometimes in communities that support such first-person inquiry, this exercise raises pre-verbal questions about whether anything in me wishes to sustain this widened circulation of attention, where I next wish to focus my attention, and whether I can maintain a background circulation of attention while allowing a fluid dance among different dissolving and resolving foreground foci. Something like this kind of real-time awareness research is necessary to be able to see, test, and transform one's inferences, attributions, and general "mental models" (Senge, 1990) in the midst of ongoing activity.

In the Handbook of Action Research, Judi Marshall (pp 435-439) and Gloria Bravette Gordon (p 319) offer retrospective views of exercising various first-person research practices, and Torbert (pp 252-253) offers a contemporaneous description from his journal of ongoing moment-to-moment efforts at widening his awareness. For example, Gordon writes of having recognized the degree to which she had allowed the "Black (African)" side of her personality and tradition to be silenced and of having increasingly rediscovered that voice, giving her more moments of choice about whether to speak and what to say.

The validity of first-person research is in part a purely first-person affair, determined by the degree to which the research generates personal transformation in the direction of a widened and deepened integrative awareness and of choiceful action congruent with one's values. But the validity of such research is also in part determined by the degree to which second- and third-person research on first-person practice confirms that the actions generated in moments of integrative awareness are optimally effective. Alternatively, we may learn that a significant incongruity exists somewhere along the path from our intent through our strategy and specific performance to our effect on another. As one of the co-authors reports, "The other day a close person told me that in the past I had been very insensitive to certain issues in our relationship. I was completely shocked! I never saw it that way! Then I realized that one thing is what I intend to do and the other is the result of my actions and how they are interpreted."

First-person research is rarely expressed in written form, particularly in western social science, in part because empirical positivist methods are intended, quite specifically, to exclude the influence of the first-person voice, and in part because it is not the primary purpose of first-person research to generate written reports. The primary purpose of first-person action research in the present is to contribute to developing a lifetime psychic "body of practice" for the first-person that increasingly takes each emergent moment as an opportunity for simultaneous action and inquiry (Alexander & Langer, 1990; Torbert, 2000). Recently, however, feminist and autoethnographic methods have generated a burgeoning literature in the area of first-person research on first- and second-person practice in the past (Behar, 1996; Ellis & Bochner, 2000; Raine, 1998; Ramsey, 1995).

One fruitful way to quickly multiply the amount of reported first-person research and explore its capacity for complementing second- and/or third-person research is to invite all PhD students in the social sciences to journalize about their own first-person research on their first- and second-person practices while conducting their dissertation research. The Center for Action Research in Professional Practice at the University of Bath in the UK currently invites this of its doctoral students. The following journalizing is found in Erica Foldy's (2002) Boston College dissertation in which she conducted in-depth interviews with persons of different race, class, and gender in four very different organizations attempting to create diversity-friendly atmospheres. The main body of the dissertation documents just how complex is the aim and how difficult is the practice of generating a truly diversity-friendly organizational environment. But only her first-person research report on the transformation that occurred in her own stance about race illustrates the depth of first- and second-person engagement required to generate a double-loop change in one's action-logic, from passively discouraging diversity friendliness in practice (no matter what one's rhetoric may be) to actively encouraging diversity friendliness. She devotes an entire chapter to documenting and analyzing the transformation she experienced. We offer here an excerpt from her early journalizing that suggests only an initial sense of the struggles she encountered in the process:

*I had a dream...that I wanted to record. In the first, JM, my only black schoolmate and friend in elementary school, told me I was exploiting her by asking her to help me with my research. [I have not, in reality, seen or spoken with JM since childhood and have not been in touch with her about my research.] I had asked her for help previously and not acknowledged her help, treated her only as someone who was useful to me, rather than someone who was a friend, someone I valued...*

*The dream indicates to me anxiety about the [research] project. I remember very clearly as a child thinking JM was ugly because she was so dark and I remember she had this very pretty dress, white with blue and green flowers, that I really liked and I didn't think she deserved it because she was dark and ugly. I also knew I shouldn't feel this way, I*

*knew my mother would be horrified [My mother was a civil rights activist at the time.]...*

*So, I have particular feelings and associations with JM and, then, I have an ongoing sense of guilt and discomfort and awkwardness about my feelings toward people of color in general... I think I feel a little like a usurper, a fraud. Here I am doing all this work on race and ethnicity, when I have so little action in my past to give me any credibility. I realized a day or two ago (unrelated to the dream, but it certainly fits here) that perhaps in a way I'm trying to change my own identity, sense of self, through this project (159-160).*

As the reader can imagine from this brief excerpt, a special kind of courage and commitment is required to conduct and publicly report first-person research. In fact, it is best to begin the process with the assumption that one may not publicly report any of it. If it helps one find a more deeply authentic voice of inquiry, it will have served a major purpose. If the resulting inquiry helps one transform one's overall functional action-logic toward more inquiring, more mutual, more effectual conduct, it will have served a second major purpose. Then, one can ask oneself whether and how reporting it will serve a public function.

**Second-person research on second-person practice** (including the first-person plural)

As with first-person research on first-person practice, it is also not possible to separate the researchers from the practitioners in the case of second-person research on second-person practice (e.g. a conversation during which the participants speak, not only about some topic, but also about how the conversation is proceeding). But, it is easier in principle to describe and report second-person research than first-person research because it is carried out between people rather than within a person. Hence, it can be audio recorded relatively unobtrusively, with parts played back during the same conversational inquiry, or else later transcribed for analysis (Argyris, 1994; Hartwell & Torbert, 1999; Reason, 1999; Torbert, 2000b).

In the *Handbook of Action Research* (Reason & Bradbury, 2001), Heron and Reason's chapter "The practice of co-operative inquiry: Research 'with' rather than 'on' people" offers the fullest general description of second-person research on second-person practice, and the chapters by Baldwin, Barrett, Lykes, and Swantz offer specific exemplars of such research in both the North and the South. In particular, Barrett's chapter on a Midwives' Action Research Group (MARG) at a hospital illustrates well how inquiry and action intertwine in such research. The group tape recorded its own cooperative inquiry meetings and gradually empowered itself to start an Early Mothering Group for new mothers and mothers-soon-to-be. At one point before the creation of the Early Mothering Group, one of the midwives says:



*I really believe that one of the biggest ways we're going to get anything done in this group is by gaining strength ourselves, through talking to each other, and getting really firm beliefs and strength in our own opinions... We haven't yet got feeling for the importance of what we're doing to the point where we're ready to stand up and take this action that we're talking about. I think that's why we haven't even had the meetings yet with the mothers (297).*

This comment can be used to illustrate how closely intertwined valid research and effective action are in second-person research on second-person practice, and how both relate to the four “territories of experience” mentioned earlier. First, we offer a very brief sense of how second-person conversational practice in general attends to the four “territories of experience” and then we will research/analyze the quoted comment. In the second-person conversational context, one attends to the outside “territory” by *inquiring* into others’ views and by active listening; one brings attention to the sensual, embodied “territory” by *illustrating* with stories about one’s own and others’ actual performances; one focuses attention in the thinking “territory” by *advocating* a perceived pattern or a proposed strategy; and one challenges and expands the limits of a group’s assumptions by *framing* or *reframing* (see Fisher, Rooke, & Torbert, 2001, for more detail).

The quoted comment, made during a Midwives' Action Research group meeting, begins with a positive *framing* of the current activity (the first sentence detaches from identification with any particular task in order to explore the integrity or incongruity among the four territories). Next, we hear a non-judgmental confrontation of the group's current enacted action-logic within the larger intent (*advocating*). Lastly, the speaker offers an *illustration* of the group's (non)performance (no meetings with the mothers yet) to support her prior advocacy. Paradoxically, the non-judgmental depiction of the group's hesitation to act probably played a role in increasing its readiness to act (this seems to be the author's interpretation). Had the speaker ended with an inquiry, such as "Do others of you think this is more or less what's going on, or do you see it differently?" the chances of generating focused feedback from other members and a more explicit readiness to act would probably increase.

This sort of analysis after the act can help us appreciate how the act itself can be considered a piece of research in the present (in this mini-case, the act presents data from three of the speaker's/group's territories of experience, implicitly inviting others to agree or disagree). Such analysis can also suggest future experiments that may improve the quality of the action, both as research and as intervention (in this case, by *inquiring*). One can go further with this sort of after-the-act analysis (as students in the Action Research Methods class at Boston College frequently do when analyzing tapes of our class meetings). One can study which of these four "parts of speech" one may overdo or underdo, in order to practice contributing to conversation in a more mindful way that is more likely to generate valid data and mutual trust. Ultimately, however, in second-person research/practice, textual analysis after the act serves as a means for

developing the ability to observe oneself and carry on such analysis quasi-intuitively in the present, as one acts, so that the group as a whole becomes more attentive, becomes more of a community of inquiry than a community of clashing habits.

The inquiries of the Truth and Reconciliation Commission in South Africa after Nelson Mandela became president illustrate how second-person research on second-person practice in the past (the Commission's hearings) can be publicized on a third-person societal scale in the present in order to begin generating interracial rapprochement, respect and trust for the future.

### **Third-person research on third-person practice**

While it is immediately clear that first- and second-person research/practice, especially in the present and future, are fundamentally different from third-person empirical positivist research, what may be less obvious is that third-person research/practice can also be done in ways profoundly different from third-person empirical positivist research. Third-person empirical positivist research can be conducted on many third-persons by a single researcher who uses previously validated instruments and does not include him or herself in the research. But third-person action research can also be conducted with many third-persons, where the practitioners researched are also the researchers and where analysis and new actions occur in a relatively decentralized way in real time with no single authoritative interpretation of the data crystallizing. Full scale third-person action research undertaken in the present for the future will, like first- and second-person action research, interweave the four territories of experience. At the organizational level, these can be named *assessing* (the outside world), *performing*, *strategizing*, and *visioning*.

Just as few individuals or groups can be said to exercise anything like on going research in the midst of action across all four territories, so also it is difficult to point to any third-person organizations or institutions that do so. Since the Buddha did not ask his listeners to believe anything, but rather to engage in a practice of awakening, Buddhism is sometimes called an ongoing, 2,500 year conversation about the nature of the visioning/assessing spectrum (in Hindu philosophy this spectrum is called the undifferentiated aesthetic continuum). To travel all the way from the sublime to the mundane in a single sentence, we can explore briefly to what degree the stock market is such a real-time, decentralized third-person action research process. In this case, most investors' research focuses on the *assessing* territory, such as companies' most recent quarterly results. Also, their research is often not disciplined or self-referential. However, disciplined, self-referential stock market research/practice in the *performing*, *strategizing*, and *visioning* territories is possible. For example, selling any stock that loses 8% of its value is a rule one can adopt as a discipline in the *performing* territory. In the *strategizing* territory, investment professionals offer their clients choices among different action-logics (e.g. large cap growth, midcap value, bonds, etc.). And in the *visioning* territory, socially responsible investing offers an alternative vision of the very purpose of investing (optimizing a triple bottom

line that includes environmental, social, and economic sustainability, not just economic profit alone). So, stock-investing practices can become rigorous action research disciplines. But, the ultimate action research objective in the stock market is to lean in a timely fashion toward growth stocks in a bull market and toward value stocks just before the bull turns into a bear. Thus, in the stock market as in all spheres of action, timeliness – which depends on the ongoing ability to integrate research on the past, in the present, and for the future – is the ultimate skill.

The *Handbook of Action Research* offers a number of examples of third-person action research. In the first chapter, Bjorn Gustavsen introduces readers to the regional, inter-organizational learning conferences that have developed in Norway, Sweden, and Denmark over the past twenty years, where the primary aim is to present one's organization and oneself and develop wider networks through democratic dialogues. In her chapter, Helen Lewis describes the Appalachian Land Study Project in which some 100 grassroots researchers documented absentee and corporate land ownership in order to influence tax assessments. And in their chapter, Peter Senge and Otto Scharmer describe the ten year evolution of the Society for Organizational Learning. SoL's members include major corporations, international organizations such as the World Bank, consultants, and researchers in an ongoing action research environment that encourages all members to interweave first-, second-, and third-person research/practice. In all these cases, but particularly in the case of the purpose and constitutional structure of the Society for Organizational Learning, we see that first-, second- and third-person action research are not alternatives or ideological competitors of one another, but rather are mutually supportive and enhancing.

We will use this comment about interweaving multiple types of action research as the opportunity to turn next to a more in-depth illustration of one series of action research projects that demonstrate the power of doing precisely that: interweaving multiple types of action research. Although, as we have noted, all of the chapters in the *Handbook of Action Research*, taken together, offer a wide variety of research methods, very few of the chapters explicitly interweave multiple methods and, at most, they interweave two or three methods. The following series of action research projects interweaves some fifteen different methods.

### **The Effect of Using Multiple Types of Action Research in a Project**

Over the course of a decade, a group of four consultants worked for an average of about four years apiece -- sometimes alone, sometimes in pairs, and once as a trio -- with ten different organizations that wished to transform (Rooke & Torbert, 1998; Fisher, Rooke & Torbert, 2001). The organizations averaged close to 500 employees and were evenly divided between for-profits and not-for-profits, and represented six different industries. Not all the organizations participated in all the research activities highlighted in Figure 3 below and to be described here; nor did they all participate in such research with the same

intensity. But all the organizations did participate in most of these research activities, and in the end, the seven of the ten that participated most completed at least one organizational transformation (as scored by three trained scorers with .9 reliability), with concomitant improvements in business outcomes critical to their sector. Of the other three organizations, two showed no change, one showed a three-stage regression, and all three experienced negative business outcomes. The results reported in this paragraph have been generated retrospectively and represent third-person research on third-person practice in the past (see Rooke & Torbert, 1998, for additional detail).

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Insert Figure 3 Here

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Now, let's document the first-, second- and third-person research activities that occurred during the consulting intervention, before these results occurred and were measured.

All of the organizations participated in senior management strategic planning (second-person research on third-person practice for the future). All of the organizations, except the one that regressed, also participated in various forms of senior management self-restructuring (second-person research on second-person practice for the future). The seven organizations that successfully transformed all accepted consultant recommendations for enhanced leadership roles on the part of all senior team members, so that each played multiple rotating meeting leadership roles over time (first-person research on second-person practice for the future) with regular feedback on effectiveness (second-person research on first-person practice). But the three senior management teams whose organizations did not positively transform did not engage in this type of action research.

As a result of the research activities just mentioned, the seven "successful" organizations developed a relatively intense process of second-person research on second-person practice in the present. For example, leadership responsibility for agenda-planning, process-management, end-of-meeting assessment, and inter-meeting project completion was shared among all team members and rotated every four or six months.

In addition, all the CEOs and senior management teams were invited to volunteer to take and receive feedback on the CRT Leadership Development Profile (Cook-Greuter, 1999) (third-person research on first-person practice in the past). All the CEOs and most, but not all, senior management team members accepted the invitation. All four consultants have also filled out this instrument. According to the theory underlying the measure (Cook-Greuter, 1999; Kegan, 1982; Torbert, 1987, 1991; Wilber, 2000), leaders at each later developmental action-logic will be increasingly receptive to feedback, until they reach a relatively rare action-logic that initiates first- and second-person action inquiry in the present and welcomes mutually-determined transformation. All four consultants scored at this action-logic or still later, as well as five of the CEOs. When a CEO

scored at this action-logic, it turned out that the organization eventually transformed twice on average. When a CEO scored at a developmentally earlier action-logic, the organization did not transform at all on average. Moreover, the CEO measured at the earliest action-logic was associated with the only organization that regressed. (Also, in this case the consultant had resigned after the CEO did not accept the consultant's recommendation that he resign, resulting in the shortest intervention.)

The CEOs measured as more likely to initiate first- and second-person research, along with one of the two CEOs who generated successful transformation even though he measured at an earlier action-logic, were also most active in seeking out competitive information on industry practices (first-person research on third-person practice in the past); as well as most active in leading industry-wide associations in influencing public policy (second-person research on third-person practice for the future); as well as in offering frequent feedback to, and welcoming it from, senior management team members (first-person research on second-person practice and vice-versa, in the present); as well as in offering developmental mentoring to senior management team members (first-person research on second-person practice for the future).

Thus, when the consultant and the CEO both actively engaged in and encouraged interweaving of inquiry and action in real time, successful organizational transformation occurred in 100% of the cases. When the consultant actively engaged in and encouraged interweaving inquiry and action in real time, but the CEO was less active (or, even, in practice, discouraging) successful organizational transformation occurred only 40% of the time.

Interestingly (and as one would theoretically expect), the one consultant scored at a still later developmental action-logic than the other consultants employed more of the 27 types of action research more often than the others and was responsible for the two successful cases of transformation when the CEO was less active in interweaving action and inquiry. Thus, if we add the Leadership Development Profile scores of the CEO and the lead consultant in each of the ten cases (hypothesizing that they are the two most significant sources for modeling transformational action inquiry in that organization during the period of the research), and if we correlate the rank order of the resulting numbers with the rank order of the number of organizational transformations achieved by each organization (from -3 to +5), we find a Spearman Rank Correlation of .78, accounting for 61% of the variance, significant beyond the .01 level.

Now, this is a tricky result that deserves a little further reflection on two counts. First, there is a terribly non-positivistic bias among many otherwise positivistic researchers which will lead them to dismiss the significance of this result on the grounds that the  $n$  of 10 is too small to give us confidence that the result is really based on the variables measured. But, of course, the significance test takes into account the small number to begin with (and a correlation based on a small number of cases must account for a much larger percentage of the variance, as ours does, if it is to reach significance). If this result is to be dismissed because of the small  $n$ , then all social science results that reach either

the lesser .05 level or the .01 level of significance should, logically, be dismissed. Of course, neither this result, nor other like results, should be dismissed. They indicate instead that the correlation is likely true (and strong, in cases where large proportions of the variance are accounted for) and that further study is definitely warranted.

The second side of the trick here is that, if our hypothetical positivist is now mollified and prepared to treat the result as a serious quantitative finding, s/he may suddenly reverse field and claim that this result invalidates the overall claim of this paper that such positive results derive from engaging in multiple types of action research in the course of the same change project. After all, s/he may point out, this finding is based on purely positivist, third-person measures of leadership and organizational practice in the past, and they account for an unusually large proportion of the variance; just what we have claimed positivist measures almost never do. This point is correct as far as it goes, but the real point is that positivist measures will succeed in capturing variables that account for larger percentages of the variance when the variables conceptualized and measured are variables that stand as proxies for person's and organizations' capacities for engaging in multiple types of action research in their everyday activities. The CRT Leadership Development Profile, based on developmental theory that conceptualizes developmentally late action-logics as leading a person to engage in increasingly ongoingly simultaneous action and inquiry, is apparently such a variable.

In sum, instead of relying only on empirical positivist types of research that divide research from action, the past from the present and the future, and third-person research from first- and second-person research and that consequently represent only approximately 6% of the action research spectrum shown in Figures 1- 3, and that then typically account for only 5-15% of the variance; this study of ten organizational transformation efforts relied on multiple types of research, including an appropriate third-person positivist type measure, that altogether represent approximately 56% of the action research spectrum, including appropriate positivist measures, and its significant findings accounted for 61% of the variance, according to the most comprehensive statistic we could compute.

## **Discussion**

There are, of course, limitations to the validity ascribable to this foregoing illustration. As already suggested, the sample of ten cases is smaller than one would optimally wish to rely upon. (At the same time, the point in all action research is not to rely too much on the relative certainty of prior results, but to remain alert to the inquiry opportunities in the present.)

A second limitation of the illustration is that although the relative diversity of industry and the balance of for-profit and not-for-profit companies in this sample suggests that the results have some generalizability, the organizations are relatively small, none of Fortune 500 scale. Hence, the results cannot be considered to generalize to very large organizations. However, the findings suggest related propositions that may successfully predict effective leadership of

organization transformation in larger organizations. For example, we may hypothesize that the higher the proportion of post-Achiever scores among the senior leadership of larger companies the higher the probability of successful organizational transformations.

Nevertheless, the foregoing study illustrates the potential reward for leaders, consultants, and researchers of using the model of 27 flavors of action research as a heuristic for engaging with a wider universe of potential action research interventions, as well as for designing particular actual interventions to increase joint inquiry in the present, to increase mutuality and joint ownership over time, and to increase the eventually measurable transformational impact. As the study itself shows (more detailed descriptions of events in particular cases are available in Fisher, Rooke & Torbert, 2001), the key to transformational effectiveness is no pre-determined skill, but rather the ongoing development of one's own and others' researching, consulting and leading toward the interweaving of first-, second-, and third-person research in more and more of one's day to day practices. Put differently, this action research paradigm of social science and social action leads toward valid conclusions about the past on paper only insofar as it generates an increasingly pervasive sense of inquiry about acts in the present lives of participants in its studies.

As more people commit themselves to such action research, and as some of them in turn commit themselves to publishing their methods and results, each of the 27 boxes or types of research deserves more careful definition and illustration. The following three tables offer a few initial indicators of activities that may be considered as research/practices within each box. Many of these have been mentioned in the prior pages, and all of them deserve expansion in future work.

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Place Tables 1, 2 and 3 about here

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Even more important, future research is required to explicate the qualitatively different notions of time implicit in the notions of action research on the past, the present, and the future. Since most people in modern society conceive of time as objective and linear, with the past as the only empirically available time ( $t^1$ ), we offer here some brief reflections on an alternative understanding and moment-to-moment experiencing of time.

From the positivist perspective, the present can't be researched, strictly speaking, because it's past before you can fully know, analyze, and report on it. And the future can't be researched at all, strictly speaking, because it hasn't yet occurred (although one can survey, say, people's current preferences or predictions for the future). Given this view, it is perfectly appropriate for a journal such as *Administrative Science Quarterly* to require, in its style policies, that all sentences be in the past tense. Nor is it surprising that even when time itself becomes the explicit topic (as in the Academy of Management Review's special issue in October, 2001) all articles except for one (Mainemelis, 2001) treat time only as linear.

By contrast, to the past-orientation of empirical positivism, the action research model presented in Figures 1-3 treats time as three-dimensional, analogous with space, and treats our intuitions of "past," "present," and "future" as keys to different, but potentially simultaneous, experiential dimensions of time (Abram, 1996; Mainemelis, 2001; Needleman, 1998; Torbert 1983, 1991, 2002). We can refer to the past as  $t^1$ , the present as  $t^2$ , and the future as  $t^3$ . "Past" ( $t^1$ ) refers to the most familiar, linear, durational experience of time. Even this kind of time we experience only occasionally, at intervals, such as when we are under pressure to perform, or else when we are bored and feeling there's nothing to do, or else and for most of us rarest, when we are ongoingly listening inwardly and outwardly, conducting action research in the present. Then (now?), momentarily or ongoingly, we participate for minutes or hours at a time, in what Csikszentmihalyi (1990) calls "flow time" and Bergson (1911) called "duree." Most of the time, however, we are altogether time-oblivious.

In the action research approach presented here, "present" ( $t^2$ ) refers to experiences of presence, experiences of currently participating in an aligned or incongruent dance among two or more of four "territories of experience": 1) the visible, outside world (the three spatial dimensions); 2) one's own actions (which "appear" in the  $t^1$  dimension of duration); 3) the different personal, interpersonal, and institutional action-logics making sense of the situation (which one can "see" only when one scans one's own and others' cognitive and behavioral patterns at the same time, now,  $t^2$ ); and 4) consciousness (the kind of attention that can include all four territories simultaneously, including intuitive intentions and possibilities for the future,  $t^3$ ). Put another way, the experience of the present is not automatically given to us. We co-create it through our first-person research on first-person practice in the present (Torbert, 1973; Varela & Shear, 1999), which can in turn be encouraged by second-person research in the present (Isaacs, 1999), and even by third-person research like this writing (as we write and you read, we can each either immerse ourselves entirely in the cognitive meaning of these words, or else we can also practice a fuller presencing from time to time, still reading but also aware of the materiality of this page and/or the sensation of our breathing, a kind of more inclusive awareness these parentheticals are meant to encourage).

We can imagine the durational line of time ( $t^1$ ) as the X or horizontal axis of a graph and the "presence" dimension of time ( $t^2$ ) as the Y or vertical axis orthogonal to duration. If one begins to take on the eternal optional call to develop one's attentional capacity for presence in multiple territories of experience at once, then one's commitment and capacity may eventually grow till one comes to live primarily in the Eternal Now, with traces of the durational past appearing in the perpetual present in the forms one sees in the outside world (the already-madness of houses, furniture, books, cooked meals, etc.), in one's bodily habits, and in memories. Traces of the future ( $t^3$ ) may also appear in this perpetual presence.

In this action research approach, "future" ( $t^3$ ) refers to our largely undeveloped potential for intentionally "shaping" our emergent experiences with ourselves and others into different patterns from the past by actively choosing



among all possibilities, rather than passively being shaped by personal habits or institutional and archetypal action-logic patterns from the past (Scharmer, 2000). This third dimension of time can be imagined as the Z axis, orthogonal to both the X and Y axes, creating the "volume of all possibilities." We occasionally gain access to this realm through altered states of consciousness such as in dreams, meditative exercises, martial arts practice, Quaker meetings, or dialogues with senior practitioners of any of the oral spiritual/shamanic/ alchemical traditions. Future scenarios, created in association with corporations, not-for-profits, and on a society-wide basis, represent a collective second- and or third-person research method for exploring the future, partly on the basis of statistical projections from the past, and partly on the basis of values projected into the future through the medium of fictional cases (Kleiner, 1996; Hawken, Ogilvy & Schwartz, 1982; Ogilvy, Schwartz & Flower, 2000; Torbert chapter in *HAR*). Another related research/practice method for creating an inspiring collectively-developed future is appreciative inquiry (see Ludema, Cooperrider & Barrett chapter in *HAR*; also Sekerka, 2002).

## Conclusion

As the foregoing discussion suggests, time is not viewed as a merely objective phenomenon in action research as here described. Rather, time is the medium through which first-, second-, and third-person types of action research on intentions, strategies, practices, and outcomes can interweave to construct and transform subjects (each of us who voluntarily participates), intersubjective communities of inquiry, and objects.

The notion of interweaving the 27 different methods of action research represents a vision of an inquiry practice that generates not only past-oriented scientific objectivity, but also present-oriented subjective spiritual awakening and future-oriented intersubjective political trust, mutuality and commitment to shared vision.

The 3x3x3 model of this new vision of action research, implicit in the *Handbook of Action Research* and explicated here, offers an expansive and inclusive vision of multiple possible types of action research. Not only does it allow for ordering of various research/practice disciplines, it also highlights underdeveloped sources and methods that can aid more informed *action* and *research*. We believe that the model of 27 action research flavors embraces the complexity of social phenomena that we all actually, though usually only implicitly, seek to understand and within which we seek to act. This model also offers one simple test of the quality of a given action research project: how large a proportion of the 27 types of action research it includes.

In this kind of "action science," the origin of the U, V, and W (or spatial) axes and of the X, Y, and Z (or temporal) axes is somewhere here and now in one's (and one's community's) own experiencing. One inquires (within and across communities), by gestures of one's own attention (that ramify into strategies, performances, and outcomes), how to recognize and enact alignment and incongruity with the origin.





Figure 1:

# 27 Flavors of Action Research

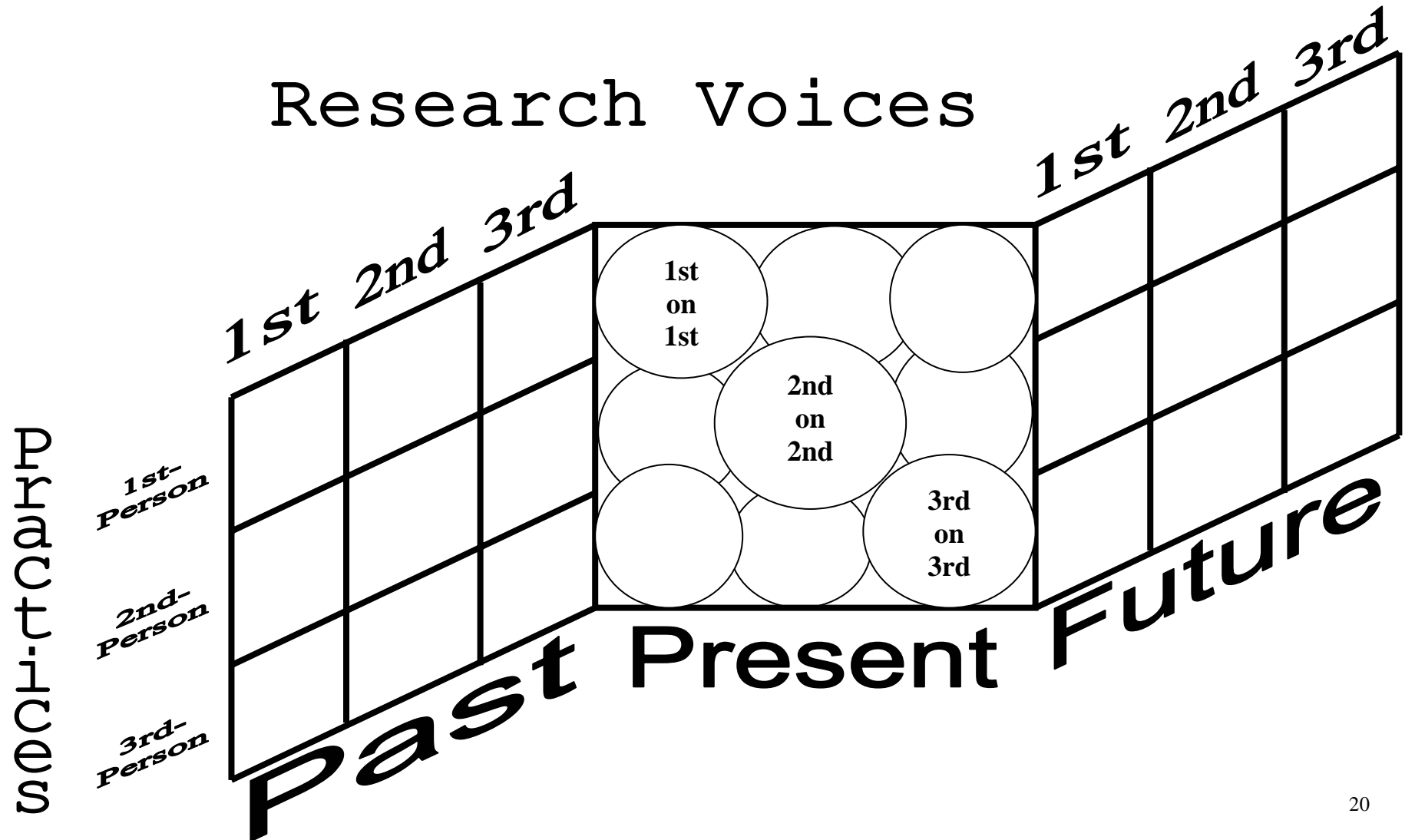


Figure 2:  
**27 Flavors of Action Research and the Proportion of the Research Spectrum Studied Through Empirical Positivist Methods**

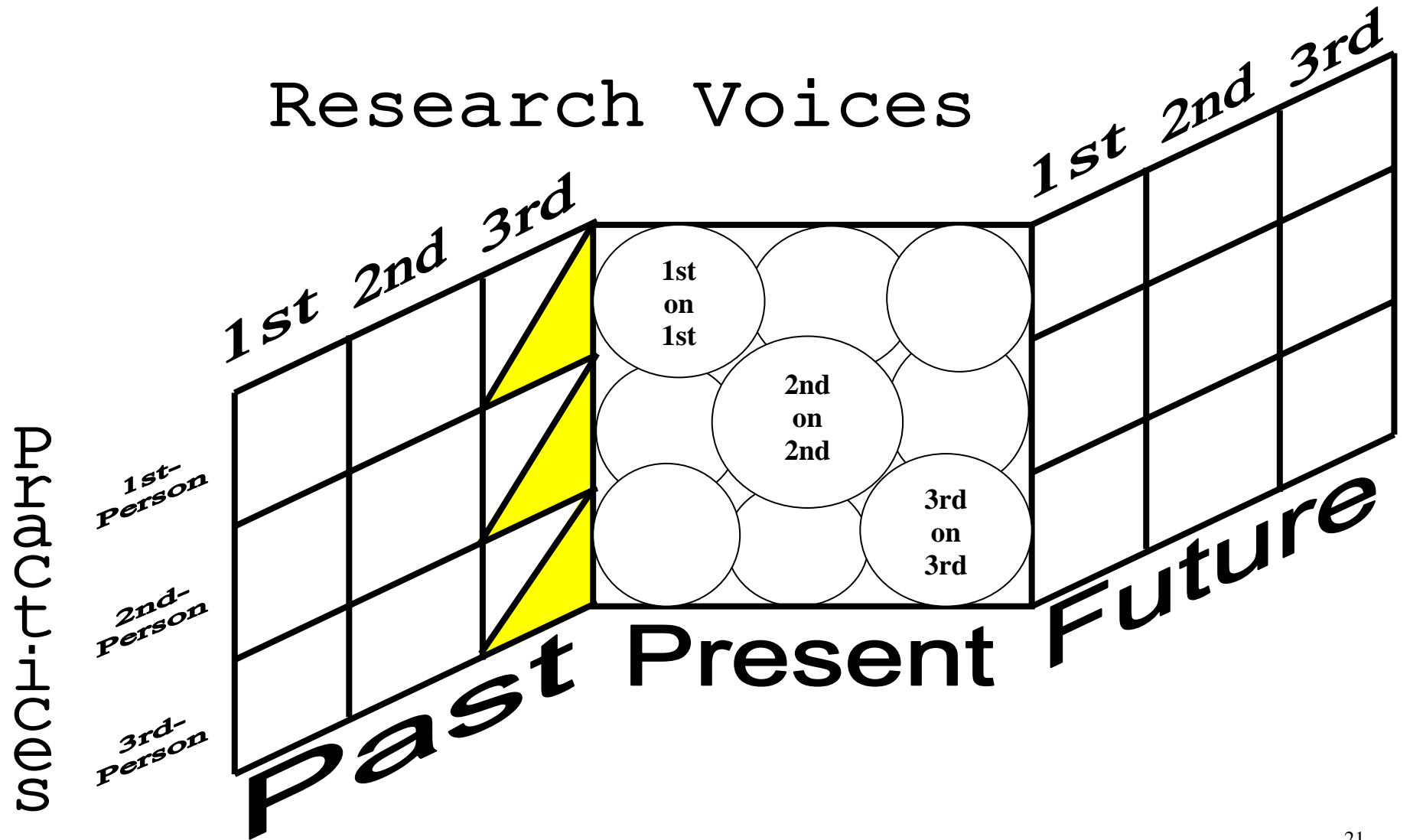
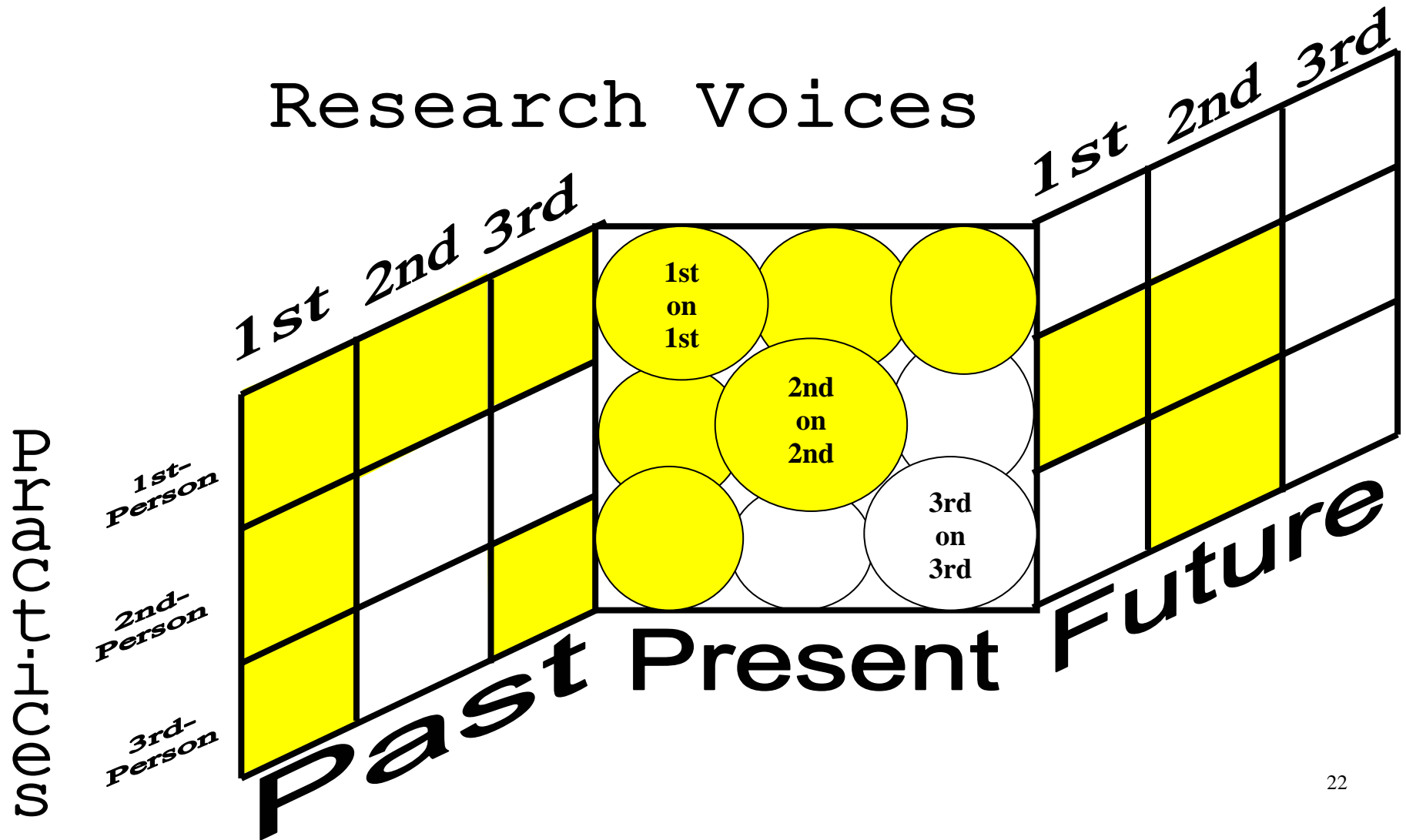


Figure 3:

# Types of Action Research Practiced in Organizations That Successfully Transform



# PAST

Table 1:

## Research Voices

1st

2nd

3rd

1st

2nd

3rd

<ul style="list-style-type: none"> <li>- Recovering early memories</li> <li>- Writing autobiographically</li> <li>- Interviewing relatives about own past (this method obviously includes an element of 2<sup>nd</sup> person research on 1<sup>st</sup> person practice as well)</li> </ul>	<ul style="list-style-type: none"> <li>- 360 degree feedback</li> <li>- Team assessments of each member's performance</li> <li>- Collaborative off-line reflection on individual's case with dialogue and feelings at the time</li> </ul>	<ul style="list-style-type: none"> <li>- National exams (e.g. SAT)</li> <li>- Psychometric measures with feedback to 1<sup>st</sup> person (Myers-Briggs, CRT Leadership Development)</li> <li>- Anonymous reviews of submissions to scientific journals</li> </ul>
<ul style="list-style-type: none"> <li>- A consultant assesses own effectiveness by reviewing all her past consulting cases</li> <li>- Minutes of meetings</li> <li>- Analysis of a meeting based on transcript of tape recording</li> </ul>	<ul style="list-style-type: none"> <li>- Family therapy</li> <li>- Organizational learning history</li> <li>- Mediation/conflict-resolution services</li> </ul>	<ul style="list-style-type: none"> <li>- Social psychology and group dynamics studies with feedback to the group</li> <li>- Ratings of departments and universities</li> </ul>
<ul style="list-style-type: none"> <li>- Political/historical autobiography (e.g. Katherine Graham's <u>Personal History</u>) (which includes 1<sup>st</sup> on 1<sup>st</sup>, 1<sup>st</sup> on 2<sup>nd</sup>, and 2<sup>nd</sup> on 1<sup>st</sup> in the past as well)</li> </ul>	<ul style="list-style-type: none"> <li>- In Search for Common Ground (attempt to reduce distrust and/or forge policy agreements between leadership of directly opposed groups)</li> </ul>	<ul style="list-style-type: none"> <li>- South African "Truth and Reconciliation" Commission</li> <li>- Quarterly accounting data feedback to firm members</li> <li>- Federal oversight agencies (SEC, FDA, etc.) (also present and future-oriented)</li> </ul>

RESEARCH VOICES

# PRESENT

Table 2:  
Research Voices

		1st	2nd	3rd
RESEARCH VOICES	1st	<ul style="list-style-type: none"> <li>- Attending to four territories of experience</li> <li>- Enacting leadership experiments in dilemic situations</li> <li>- Journalizing</li> <li>- Prayer</li> <li>- Tai Chi</li> </ul>	<ul style="list-style-type: none"> <li>- Executive coaching</li> <li>- Participation in AA</li> <li>- Actively observant parenting</li> </ul>	<ul style="list-style-type: none"> <li>- Polls about political candidates</li> <li>- Participation in religious ritual</li> <li>- Competitive individual sports (e.g. track meets)</li> <li>- Quarterly returns on one's personal investments</li> </ul>
	2nd	<ul style="list-style-type: none"> <li>- Attending to rhythms of conversation and balancing of framing, advocating, illustrating, and inquiring</li> <li>- Consultant intervening to highlight, question and potentially transform group norms</li> </ul>	<ul style="list-style-type: none"> <li>- Co-operative inquiry</li> <li>- Participatory selection process</li> <li>- Community sentencing for restorative justice</li> <li>- Improvisational acting, dancing, jazz, martial arts</li> <li>- Love making yoga</li> </ul>	<ul style="list-style-type: none"> <li>- Competitive team sports (e.g. World Cup Soccer)</li> </ul>
	3rd	<ul style="list-style-type: none"> <li>- Rotating into a new leadership role in organization where all members of all teams hold rotating leadership roles</li> </ul>	<ul style="list-style-type: none"> <li>- Brainstorming inventions</li> <li>- Deliberative polling</li> </ul>	<ul style="list-style-type: none"> <li>- Stock market</li> <li>- Elections (instant run-off voting)</li> <li>- Appalachian Land Ownership Task Force</li> <li>- The Society for Organizational Learning</li> </ul>



# FUTURE

Table 3:  
Research Voices

SOCIETIES

	1st	2nd	3rd
1st	<ul style="list-style-type: none"> <li>- Visioning one's intentions</li> <li>- Remembering and interpreting dreams</li> <li>- Writing own obituary</li> <li>- Strategic planning for own developmental transformation</li> </ul>	<ul style="list-style-type: none"> <li>- Mentoring</li> </ul>	<ul style="list-style-type: none"> <li>- Feedback of score on developmental measure and study of next action-logic for possible new practices</li> <li>- Use of <u>Iching</u> or Tarot cards to help envision one's intentions</li> <li>- Executive education</li> </ul>
2nd	<ul style="list-style-type: none"> <li>- A meeting agenda</li> <li>- Teacher or trainer developing curriculum</li> </ul>	<ul style="list-style-type: none"> <li>- Team visioning and chartering</li> </ul>	<ul style="list-style-type: none"> <li>- Future search conferences</li> <li>- World e-parliament (intended to permit legislators from different democracies to create coordinated proposals in regard to multi-national issues)</li> </ul>
3rd	<ul style="list-style-type: none"> <li>- Inventing a new product or service (e.g. Synectics)</li> <li>- A budget proposal</li> </ul>	<ul style="list-style-type: none"> <li>- Focus groups on new products</li> <li>- Senior management strategic planning</li> <li>- Future scenarios</li> <li>- Seeking to establish international commitments to time tables for reducing environmental degradation</li> </ul>	<ul style="list-style-type: none"> <li>- Society for Organizational Learning</li> <li>- Public policies</li> <li>- Liberating disciplines</li> <li>- Integral Institute</li> <li>- "Learning Region" program in Sweden</li> </ul>



## References

- Abram, D. (1996). *The Spell of the Sensuous: Perception and language in a more than human world*, New York: Pantheon.
- Argyris, C., Putnam, R. & Smith, D. (1985). *Action science: Concepts, methods, and skills for research and intervention*, Jossey-Bass, San Francisco.
- Behar, R. (1996). *The Vulnerable Observer: Anthropology that breaks your heart*. Boston, Beacon Press.
- Bergson, H. (1911). *Creative Evolution*. (Trans. A. Mitchell) New York: Henry Holt.
- Cook-Greuter, S. (1999), *Postautonomous ego development: A study of its nature and measurement*, Unpublished Harvard University doctoral dissertation, Cambridge MA.
- Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience*, New York: Harper & Row.
- Ellis, C. & Bochner, A. 2000. Autoethnography, personal narrative, reflexivity. In N. Denzin & Y. Lincoln, *Handbook of Qualitative Research*. Thousand Oaks CA: Sage. 733-768.
- Fisher, D., Rooke, D. & Torbert, W. (2001), *Personal and organizational transformations: Through action inquiry*. Boston MA: Edge\Work Press.
- Foldy, E. (2002). *Being all that you can be: Identity and power in organizations*. Unpublished doctoral dissertation, Boston College, Chestnut Hill MA.
- Hartwell, J.K. & Torbert, W.R. (1999), "A group interview with Andy Wilson, founder and CEO of Boston Duck Tours and Massachusetts Entrepreneur of the Year" and "Analysis of the group interview with Andy Wilson: An illustration of interweaving first-, second-, and third-person research/practice", *Journal of Management Inquiry*, Vol. 8, pp. 183-204.
- Hawken, P., Ogilvy, J. & Schwartz, P. (1982). *Seven Tomorrows: The potential crises that face mankind and the role of choice in determining the future*. New York: Bantam.
- Heron, J. (1996). *Co-operative Inquiry: research into the human condition*. London, Sage.
- Isaacs, W. (1999). *Dialogue and the Art of Thinking Together*. New York: Doubleday.
- Kegan, R. (1982). *The Evolving Self*. Cambridge, Ma, Harvard University Press.
- Kleiner, A. (1996). *The Age of Heretics*. New York: Doubleday Currency.
- Mainemelis, C. (2001). When the muse takes it all: A model for the experience of timelessness in organizations, *Academy of Management Review*, 26(4): 548-565.
- Needleman, J. (1998). *Time and the Soul*. New York: Doubleday Currency.
- Ogilvy, J., Schwartz, P., & Flower, J. (2000). *China's Futures: Scenarios for the world's fastest growing economy, ecology, and society*. San Francisco: Jossey-Bass.
- Raine, N. (1998). *After Silence: rape and my journey back*. New York, Crown.
- Ramsey, M. (1995). *Where I Stopped: Remembering Rape at Thirteen*. New York: Putnam.
- Reason, P. (1994). *Participation in Human Inquiry*. London: Sage.

- Reason, P. (1999). General medical and complementary practitioners working together: the epistemological demands of collaboration. *Journal of Applied Behavioral Science*, 35(1): 71-86.
- Reason, P. & Bradbury, H. 2001. *Handbook of Action Research*. London: Sage.
- Barrett, P. The early mothering project: What happened when the words 'action research' came to life for a group of midwives. 294-300.
- Friedman, V. Action science: Creating communities of inquiry in communities of social practice. 159-170.
- Gordon, G. Transforming lives: Towards bicultural competence. 314-323.
- Gustavsen, B. Theory and practice: the mediating discourse. 17-26.
- Heron, J. & Reason, P. The practice of co-operative inquiry: Research 'with' rather than 'on' people. 179-188
- Ludema, J, Cooperrider, D. & Barrett, F. Appreciative inquiry: The power of the unconditionally positive question. 189-199.
- Lykes, M. & Assoc. of Maya Ixil Women Creative arts and photography in participatory action research in Guatemala. 363-371.
- Marshall, J. Self-reflective inquiry practices. 433-439.
- Rudolph, J., Foldy, E., & Taylor, S. Collaborative off-line reflection: A way to develop skill in action science and action inquiry. 405-412.
- Senge, P. & Scharmer, O. Community action research: Learning as a community of practitioners, consultants and researchers. 238-249.
- Torbert, W. The practice of action inquiry. 250-260.
- Rooke, D. & Torbert, W. 1998. "Organizational transformation as a function of CEO's developmental stage", *Organization Development Journal*, Vol. 16 No. 1, pp. 11-28.
- Scharmer, O. (2000), *Presencing: Learning from the future as it emerges*. Presented at Academy of Management, Chicago, 1999, and Conference on Knowledge and Innovation, Helsinki, Finland, May, 2000.
- Sherman, F. & W. Torbert, eds. (2000), *Transforming social inquiry, transforming social action*, Boston MA: Kluwer Academic Publishers.
- Torbert, W. R. (1973). *Learning from Experience: Toward Consciousness*. New York, Columbia University Press.
- Torbert, W. (1976), *Creating a community of inquiry*, Wiley, London.
- Torbert, W. R. (1983). "Research Cultivating Executive Mind, Timely Action." *ReVision* 4: 1-23.
- Torbert, W. (1987), *Managing the corporate dream: Restructuring for long-term success*, Dow Jones-Irwin, Homewood, IL.
- Torbert, W. (1991), *The power of balance: Transforming self, society, and scientific inquiry*, Sage, Newbury Park, CA.
- Torbert, W. (1997). Developing courage and wisdom in organizing and in sciencing. Shrivastva, S. (ed.) *Organizational Wisdom and Executive Courage*, The New Lexington Book Press, San Francisco CA, 222-253.
- Varela, F. & J. Shear eds. (1999). *The view from within: First-person approaches to the study of Consciousness*, Thorverton UK: Imprint Academic.

Wilber, K. (2000), *Integral psychology: Consciousness, spirit, psychology, therapy*, Boston MA: Shambala.