

New Perspectives on Theory-to-Practice: Implications for Transforming Teacher Education and Child Outcomes

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Abstract

Noting the importance of the relationship between theory and practice to the quality of early childhood education, this paper deals with two issues: (1) translating available empirical and theoretical knowledge into effective practice, and (2) what Lilian Katz's work, collectively, would then indicate for a model of teacher and caregiver preparation that would yield the best possible practitioners. The paper points out that to transform teacher preparation, certain streams of thought can be considered as a way to "reconceptualize" the theory-to-practice issue in a way that can serve to generate a conceptual schema for framing Lilian Katz's far-ranging work in early childhood education into a new, transformational model for teacher preparation. Among the notions to be considered are a reciprocal process for integrating theory and practice, the concept of the "mental model," hermeneutics in developmental work, and nonlinear dynamical systems theory. The paper then discusses the "Katzian Early Childhood Teacher Preparation System," including guiding principles, goals, curriculum, delivery, professional development, indirect practice, and faculty characteristics.

"Let's call a one-year moratorium on dinosaurs." Lilian Katz

"As a nation, we're simply not taking advantage of how much we have learned about early development over the past 40 years." This statement by Jack Shonkoff, chair of the committee formed by the National Academies (2000) and produced by the National Research Council and Institute of Medicine (<http://nationalacademies.org/>), along with the increasing body of compelling evidence that proper preparation of early childhood teachers and caregivers is directly related to positive developmental outcomes for children (e.g., *Children at the Center*, 1979; Buell, 1999), pose a profound challenge to early child education today.

This challenge is to take what we already *know* about what promotes positive and healthy development and ensure that it is applied in direct practice. We all know this—all we have to do is to review the observations we make daily in various early childhood programs. Despite the wealth of research on child development and developmental practice, and the books and journals full of descriptions of prototypes of marvelous programs, the fact remains that at "point of service" (while there are certainly exceptions) early childhood programs in general are of poor quality. Since well-prepared practitioners are related to positive outcomes, the challenge is to *prepare* a knowledgeable and competent direct workforce of teachers, caregivers, and child development specialists, along with "indirect" practitioners: advocates, directors, administrators, trainers, educators, and researchers (VanderVen, 1994), who collectively can create a system of better quality direct practice.

Now a major 20th-century contributor to early childhood theory, research, and practice, Professor Lilian Katz, is being honored for a lifetime of contribution to early childhood education. Given the challenge described above, is there a way we can look at her work to see what it tells us about how to address the challenge? On the premise that the answer is "yes," this paper will deal with the two issues at hand: (1) translating available empirical and theoretical knowledge into *effective* practice, and (2) what Lilian Katz's work, collectively, would then indicate for a model of teacher and caregiver preparation that would yield the best possible practitioners.

Thus, this paper will propose (1) a new way to conceptualize the “theory-to-practice” issue; and, applying it, (2) present the model to be called the “Katzian Early Childhood Teacher Preparation System” (following Katz herself, the term “teacher” will be used to refer to a variety of practitioner titles—e.g., child care worker, developmentalist, caregiver).

To aid in the construction of the framework for the proposed model, an attempt was made to access all extant written work of Lilian Katz; a compilation of the pieces found is in the reference list. These works were reviewed with an eye to identifying salient themes in each work and synthesizing “meta-themes” across works. (By definition, this activity was reductionistic: when attempting to summarize an extensive and varied body of work, subtleties inevitably are omitted. The author takes complete responsibility for errors of omission and acknowledges that the methodology itself is subject to the pitfalls that accrue when “theory is translated into practice.”)

The Theory and Practice Issue

That there is a “breach” between theory and practice in the child-caring fields has continually been acknowledged (e.g., VanderVen, 1993). Students can spend hours taking “courses,” yet when confronted with direct practice situations, they are unable to apply their “learning” into changed practices. Similarly, staff can sit through numerous “inservice” training experiences and continue the same uninformed practices that the training sessions were supposed to modify. If early childhood teacher preparation (for purposes of this paper defined as including primarily formal education) is to improve practice, then we need to rethink or, to use the words of those also espousing a transformed look at early childhood education, “reconceptualize” it (e.g., Kessler & Swadener, 1992). Such a reconceptualization needs to be transformational rather than additive; that is, to look at core values, content, delivery structures, and the like, rather than simply adding more to the current system. A transformed way of providing teacher preparation must be developed if collectively the early childhood workforce is going to be successful in promoting positive developmental outcomes for children by translating theoretical and empirical knowledge into changed practice.

To initiate this process, certain streams of thought can be considered as a way to “reconceptualize” the theory-to-practice issue in a way that can serve to generate a conceptual schema for framing Lilian Katz’s far-ranging work in early childhood education into a new, transformational model for teacher preparation. Among the notions to be considered are a reciprocal, rather than either-or, process for viewing theory and practice (VanderVen, 1993); the concept of the “mental model” (Senge, 1990; VanderVen, 2000); hermeneutics in developmental work (Nakkula & Ravitch, 1998); and nonlinear dynamical systems theory (e.g., Eoyang, 1997; Goerner, 1994; VanderVen, 1998, 2000).

The Reciprocal Process for Integrating Theory and Practice

A reciprocal, multistep process for integrating theory and practice that embraces a top-down process in which grand theories and synthesized theories are translated into practice and a bottom-up process in which experience and practice are conceptualized into grand theory has implications for designing training and education programs that would be very different from the coursework of universities and the workshops of inservice training providers. The reciprocity would be embraced by encouraging practitioners to review and conceptualize their experience into larger theories, while simultaneously mastering existent theories, deducing practice implications from them, trying them out, and then revising them in an ongoing interactive process. For this integrated activity to occur, there would need to be concomitant integrated components of education and practice.

Hermeneutics

Hermeneutics, which deals with interpretation (Nakkula & Ravitch, 1998), is an extensive and complicated subject. However, hermeneutics can provide insight into the relationship between theory, research, and practice. In applied developmental work, the practitioner enters the “hermeneutic circle” in which, striving to uncover the meaning of both others’ actions and one’s own actions in relation to others’, the boundaries between what is “theory,” “research,” and “practice” become blended, as both

parties continue on the path of mutual uncovering and understanding that leads to further growth.

In this sense, according to the hermeneuticists, “theory and practice are the same.” This notion may be puzzling to those who are used to thinking of theory and practice as dichotomous, unattached concepts. The notion of the mental model, to be discussed momentarily, may resolve the issue: If one considers that actual practice is driven or determined by the practitioner’s mental model, then theory and practice actually become integrated in that mental model.

Mental Model

A “mental model,” described in Senge’s groundbreaking work on transforming organizations into “learning organizations” (1990), is the “internal, coherent frame of reference we use to represent our worldview, to integrate our experiences and to draw upon for problem solving and decision making” (VanderVen, 2000, p. 121). Mental models can range from the simplistic to the more complex, with complexity better enabling the person to understand both subtle and systemic factors operating in a situation. It would seem that the mental model is the internal determining factor of what actually gets implemented in practice and determines the practitioner’s response. Given the relevance of effective early childhood practice to these abilities, it would seem that the more complex an early childhood practitioner’s mental model is, the more sound his or her practice would be because it would better resonate with the reality and needs of a particular situation. Thus, it would seem that if teacher preparation in early childhood education were designed in a way to develop complex mental models in practitioners, then these would provide an internal working concept of integrated theory and practice.

Nonlinear Dynamical Systems Theory

Nonlinear dynamical systems theory embraces chaos theory and complexity theory. In general, these theories, which recently have been utilized as a “lens” for viewing early childhood issues (e.g., VanderVen, 1998), deal with unpredictability, nonlinearity, and the interconnectedness of and among systems (Goerner, 1994). One concept in nonlinear dynamical systems

theory is that of the fractal: an iterative and self-similar process in which forms repeat themselves from a micro to macro level (Eoyang, 1997). Applied to an organization, a “fractal” organization would have a thread of coherence running through every structure from the smallest to the largest, so that all actions were aligned towards a common goal or mission. This key concept will be the pivotal point for reconceptualizing teacher preparation in a Lilian Katz framework.

Perhaps in advance of her time, Lilian Katz thought in terms of nonlinear dynamical systems theory, when she referred to the “feed forward” phenomenon in teacher preparation (Katz, 1984b). The issue posed is that students are exposed to content that prepares them for eventualities that they have not yet experienced. As early as 1977, Katz stated: “There are many complex mixtures and dynamics in the causes of behavior. We safeguard the quality of children’s experiences when we do justice to these complexities” (p. 104). Katz also considers recursion, feedback from the outcomes of a system back into the same system which produces new outcomes. Recursion effects contribute to the practitioner’s mental model of practice.

There are several implications of nonlinear dynamical systems theory for teacher education. First of all, teachers, along with those in related professions such as social work, need to understand general systems theory. Very basically this means that they understand that the phenomena they deal with are systemic—multiply determined, interactive, and interconnected—to state it very simply. Similarly, teachers need to recognize how effective educational experiences might be seen as delivered in a more integrated or circular fashion, with different experiences occurring simultaneously as well as in the more traditional sequential way.

Summarizing these concepts into a transformed notion of theory and practice to “situate” a model for teacher preparation is a challenge. This model would incorporate theoretical, empirical, and practical knowledge into a structured yet dynamic and evolving delivery system that would have structures for enabling practitioners to develop more complex mental models by reflecting on their practice in order

to connect direct experience with theoretical constructs. The fractal concept suggests that teacher preparation activities and what teachers are expected to do in practice should be, in general, aligned. In line with the overall systemic conceptual approach embracing hermeneutics and nonlinear dynamical systems theory, none of the concepts related to reconceptualizing theory and practice is independent of the other; rather they are overlapping processes that collectively set forth guiding principles for a teacher preparation system. When these are applied to the themes of Lilian Katz's work, it seems appropriate to consider the resultant proposal: a "Katzian Early Childhood Teacher Preparation System." It should be pointed out that that Professor Katz has already made a major and substantive contribution to early childhood teacher education (e.g., 1984a, 1984b, 1984c, 1996, 1997a, 1997b). What is being done here then *extends* the power of this work by connecting it to theory-practice reframing and integrating it into her work on dealing specifically with children.

Integrating Theory and Practice: The "Katzian Early Childhood Teacher Preparation System"

Certainly, based on Katz's implicit understanding of nonlinear dynamic systems, a Katzian teacher preparation activity would be systemic. Hence, we will refer to our proposals as a "teacher preparation system." Included in it will be "guiding principles," or an underlying philosophy; goals; the curriculum, both content and paracurricular aspects; delivery structures; professional development; indirect practice; and faculty characteristics.

Guiding Principles

- The linchpin of the system is Katz's own notion, the *Principle of Congruity*: "the way we teach teachers should be congruent in many basic aspects—but not all—with the way we want them to teach children" (1977, p. 57). This principle is "derived from two presuppositions." One is that we serve as a model for both adult and child students; the other is that there are generic teaching principles applicable to learners of all ages. Katz points out that the congruity is or should not be completely identical; rather there would be a "consistency, harmony, or concordance between the way we teach teachers and the way we want them to teach" (p. 58). This notion in terms of contemporary chaos and complexity theory would then bring a fractal quality, or *coherence*, to teacher preparation. I would hereby propose that this *alignment* would—by both implicitly and explicitly creating an internal working model of practice, with an understanding of contextual factors—improve practice.
- There would be both "cores" and "threads" in the curriculum; that is, there would be formal content or "cores" in specific courses or curricular delivery units, but also there would be "threads" reflecting the values associated with the content across the organized curriculum components (e.g., child development theory would be a core, but a critical perspective on that theory would be a thread running through all the curriculum).
- There would be a major component of fieldwork, although the precise model that would be most effective is yet unknown (Katz, 1984b). To actualize the integration of theory and practice through reciprocal theory and mental model building, there would be courses, discussions provided specifically to focus on the relationships emerging between students' informational knowledge and practice activities.
- Activities would be dialectic; that is, embrace two dichotomous perspectives as dimensions on a continuum rather than one over the other. For example, skills-oriented art instruction and free, expressive art would both be seen as more likely to enhance children's creativity than either one of them alone.
- Source knowledge would include "child development theory" taught in a critical way so that learners would recognize that "working knowledge" of theory provides a conceptual framework for one's mental model of practice.
- While studying about children can be enjoyable, it should be considered *serious*—in intent, content, and delivery.

- There would be continuing education and other models to support any time-limited educational effort to support the ongoing professional development of practitioners into more complex practice and into other roles in practice.
- “Knowledge, skills, dispositions, and feelings” (Katz & Chard, 1990, p. 49) would all be entrained in a comprehensive curriculum that would acknowledge the significance of the social construction of knowledge.

Goals

Like any curriculum, there would be goals in the Katzian Early Childhood Teacher Preparation System. Broadly stated, and taken from Katz herself, these could be for adults as they would be for children: (1) acquisition of knowledge, (2) acquisition of skills, (3) development of dispositions, and (4) development of feelings conveyed in a way that reflects both the continuity to adult development from childhood and the greater experience and mental complexity of adults (Katz, 1997a, p. 16; Katz & Chard, 1990).

Curriculum

Curriculum usually is described in terms of content to be conveyed and the processes by which that is done.

Content (Knowledge)

Discipline knowledge. A strong theme in Katz’s writings is the need for children to receive systematic instruction (along with other forms), to do work that is taken seriously, to be exposed to formal content. While wishing to avoid a quantum leap, these themes would suggest that at the crux of the Katzian Early Childhood Teacher Preparation System would be a strong liberal education in disciplines of the arts, humanities, social sciences, and physical sciences.

Child development (both “normative” and “dynamic”) concerned with normative ranges, change, cumulative effects, and long-term impacts (accompanied by critical thinking). Katz (1996) discusses sensibly the role of child development theory: that while some of the criticism of it as the basis for practice (e.g., Kessler & Swadener, 1992)

may have credence, it still obviously has a great deal to offer as long as one remains aware of the issues.

Ethics and ethical principles. Resolving ethical dilemmas and the like would be both a “core” and a “thread”: it would be taught as a content area, while an ethical context would inform all educational experiences.

Social development and group process. The relationship of social development to cognitive development and the power of the group if properly used to promote developmental goals and enhance learning is stressed by Katz in various writings—for example, *Fostering Children’s Social Competence* (Katz & McClellan, 1997). Teachers would experience these processes in a context that fostered ongoing development of the same social skills in themselves.

Planning and program design. The notion of planning and design of program crosses Katz’s writings; such content would certainly be included in the teacher preparation curriculum with actual practice in program design, application, and evaluation.

Skills (Teaching Strategies)

In her writings, Katz describes a number of specific strategies. The effective curriculum would certainly identify these and provide opportunity for supervised application of them *in situ*. Skill in specific curricular areas for children (e.g., art, drama, music) would also be promoted.

Dispositions

A strong early child program fosters dispositions or “habits of mind,” as Katz (Katz & McClellan, 1997) has called them, for learning in children. An effective teacher preparation program would cultivate dispositions as well. Such qualities, crucial to the notion of ongoing professional development into greater complexity, could include curiosity, workmanship, creativity, and reflectivity.

Feelings

Perhaps feelings is one area in which there would be the least congruence between what is done with children and what is done with adults. Learning to be

sensitive to children's feelings of course is crucial in early childhood teacher education, but there needs to be consideration as to how far feeling states openly move into the more formal educational process. In this area, perhaps Katz's principle of "optimal distance" would apply. Certainly there would be some sensitivity to and accommodation of individual situations. Faculty roles similarly would address the issue; an advisor would be a more appropriate person to deal with feelings and heavily affective situations than might be a "content" centered professor. Nondidactic instructional strategies such as simulations and role plays could be a suitable way to "teach" about children's feelings while maintaining "optimal distance" between students and faculty. Following Katz's contention that relationships are best when centered around content, ensuring that this principle is embodied in the curriculum can help to focus appropriate expression of adult feelings as connected to the realities of the learning situation at hand.

Process

A curriculum includes not only the content but also processes that situate how the content is taught and how both content and processes together support the curricular goals.

"Enabling" and prescribed curriculum. Curriculum would both be "enabling"—that is, open ended to allow flexibility and participation in its shaping by learners as well as teachers, especially as learning increased over time—and substantive.

Multiple forms of investigation. These would include observation (not necessarily at the outset of a preparation program), empirical research methods and applications (Katz frequently calls for empirical testing of premises she has proposed), and qualitative approaches to learning (for example, learning through using art media).

Systematic instruction/Rigorous content and constructivist learning. This premise is adapted from Katz's concept of "realistic and imaginative representation" for children (Katz, 1993). Content would not be seen as constrictive, or an "either-or" barrier to open expression, but rather as an enhancer—rigor, even including some memorization, specific knowledge of theories and concepts, and the

like would be included with the recognition that requiring such an approach to content does not prevent more informal constructivist and representational activities.

Assessment governed by moderate inspiration. A precursor of the insight from the "self-esteem" movement that meaningless praise does not improve either one's feelings about oneself or one's performance, moderate inspiration as described by Katz (1979) suggests providing encouragement and inspiration specific to work performed rather than in a global or undifferentiated way. This view of assessment could suggest that in a Katzian model of teacher preparation, there would be no grade inflation. Rather, an assessment system would be designed based on specific outcomes, performance standards for attaining them, and multiple ways of demonstrating proficiency in them.

Extended family model. A community of learners who "shared responsibility, intimacy, informality, and participation" (Katz, 1993, p. 33) would be cultivated in a way that focused around topics to be learned about and tasks to be completed, to maintain "optimum distance" between the faculty and the student—much better done around shared interests than in a vacuum.

Delivery

The Professional Development School model. This model (e.g., Larkin, 2000) would be ideal to reflect a Katzian model of teacher preparation. A Professional Development School is an equal partnership between an academic institution and direct service program(s) in the community.

Multiple teaching methods. There would be multiple methods of instruction utilized, ranging from teacher (faculty) directed, focusing on specific knowledge and skills to be acquired, to student guided.

Project Approach. The Project Approach, as conceived as a pedagogy for children (Katz & Chard, 1990, 1996, 1998), is eminently applicable to adult learners and encourages the application of knowledge and skills more systematically acquired. Students together, and students and faculty, would engage in developing projects related to identified intellectual

and learning goals. Project work would be an ideal way again of applying a major Katz tenet: that there should be *content* in relationships and that such content enhances the quality of that relationship. The shared inquiry would enable multiple perspectives to be integrated into everybody's evolving mental models.

Grouping. In the Katzian model, there would be great emphasis on grouping of learners, beyond those who just happened to sign up for a course and are sitting in rows of desks. Student bodies would be diverse and could incorporate "mixed-age grouping" (Katz, 1995) at the adult level. To enable such assemblages of student bodies, target marketing could be utilized in student recruitment, and financial and other support could be provided to nontraditional college-age learners. Intergenerational learning teams could be particularly powerful, pairing senior learners with younger ones in class activities, project work teams, and the like.

Paracurriculum/Professional Development

Professional development. The notion of ongoing professional development of learners and practitioners would be central in the Katzian Early Childhood Teacher Preparation System. Katz (1977) has proposed stages of post-education teacher development (survival, consolidation, renewal, maturity) with a focus on how training (as differentiated from formal educational preparation) might support the teachers in each stage. In the model of preservice education proposed in this paper, there would be consideration of similar stages of teacher development in design and delivery of the curriculum.

The continued focus would be ways to "modify teachers' concepts" so that they continue to develop "understanding that is more appropriate, more accurate, deeper, and more finely differentiated than previously" (Katz, 1979, p. 2).

Professional socialization. In line with the phase evolution of teachers is the need for professionalization into role. It has been frequently observed that younger or less mature practitioners, less differentiated from their own parents and from adult authority, espouse in practice identifications that do not maintain the "optimal distance" that Katz recommends between children and teachers. A conceptual model to

enhance understanding of this dynamic could be her comparison of the roles of mothers and the roles of teachers (Katz, 1980).

Critical thinking. A crucial disposition in the Katzian Early Childhood Teacher Preparation System would be critical thinking so that teachers both in preparation and in practice would continuously look at the learning and work in terms of critical factors. For example, the empirical and theoretical sources of the child development theory that probably should undergird practice need to be viewed in terms of their historical origins and different meanings and implications across contexts.

Continued education. One of the very strongest themes in Katz's writings taken as a whole (not surprisingly, of course) is that of ongoing development in which the individual grows and changes over time. For example, her stages of teacher development suggest that the "best" or "optimal" education would not end when the student departs with a certificate or diploma. The "feed forward" situation in which preservice teachers are prepared for situations they have not yet encountered is also a rationale for developing a system of ongoing "continued" education. "Continued" education would consist of formal and informal means of being exposed to new information, interacting with other colleagues, including mentors, and utilizing a variety of learning sources to extend one's knowledge and skills. These would certainly contribute to increasing the complexity of practitioners' "mental models" and their development of professional "maturity." Following a nonlinear approach, and the concept of recursion, "maturity" could occur at the upper point of one phase of development related to a certain kind of professional function. Then the individual would enter a new state of practice requiring adjustment and perhaps further preparation—and then be in the "survival" stage. Again the practitioner would work her or his way up to "maturity" in this function, and the process would continue, iteratively, throughout a lifetime career.

"Indirect" Practice

Formal preparation of professionals to serve in "indirect" roles, such as supervisors, directors, administrators, advocates, trainers, and educators (of other adults) would be a major aspect of the Katzian

Early Childhood Teacher Preparation System and would make the system multi-leveled and indeed “systemic.” Included would be:

Interpretive skills. Very much in the hermeneutic tradition, Katz “interprets” the function of the *pedagogical leader*—which would be that of a faculty member in this proposed system—as serving as an *interpreter* of the field to others (Katz, 1997b). This position requires being able to speak in the “languages” of various constituencies and includes understanding and connected interaction between researchers and practitioners.

Futurism. Futurism would embrace awareness of the rapid changes in society and the fact that children and families in the future may not only be more diverse than they are now and hold different goals for the outcomes of development but also may require very different kinds of attributes in order to adapt successfully.

Planning. Planning could be taught through the execution of projects, with an approach reflective of the “webbing” used in project planning with young children. Such strategies allow joint participation in the planning.

Dispositions. To be “inventive” (Katz, 1979), to continue learning because everything can’t be taught at once, the learner needs to be capable of self-directed learning over time. This disposition would be particularly important for the indirect practitioner and leader.

Socialization skills. Because indirect practitioners serve to instruct, guide, and socialize the next wave of direct practitioners into the field and into increased professional growth, skills appropriate to facilitate such socialization would be included.

Communication skills. An interesting aspect of Lilian Katz’s work is that she has adapted her evolving conceptual framework to common issues, as indicated by her pieces written for parents on practical issues in child rearing such as adoption, fighting, separation, and gender (e.g., Katz, 1986a, 1986b, 1986c; 1987a, 1987b). These articles condense her lifetime of professional wisdom into practice principles that are clear and applicable by the nonprofessional reader. For any child care professional to extend the scope of influence of his or her work, communication skills—and the ability to translate theory into practice—are crucial.

Faculty

Key of course in any professional or “early childhood teacher development system” is the issue of who will be the instructional staff (faculty). Faculty with primary roles for instructing students, especially in practice, would have an extensive and preferably ongoing involvement with *direct practice*. Yet, in a dialectic way, this involvement should not be at the expense of their identification with and production of *serious scholarship*. This view is in alignment with Katz’s contention that American early childhood education would be enhanced by encouraging the stance of Reggio Emilia that it is important that learners know what their teachers “stand for.” Such teachers would embrace and communicate professional issues that deeply engaged them to their students. Serious scholarship, of course, could be the scholarship of practice that follows the reciprocal model of theory-practice and practice-theory.

Conclusion

In the beginning of this paper, I offered a direct quote from Lilian Katz that she made, as I recall, perhaps not as well as the quote itself, in a presentation given in Pittsburgh at an annual conference of the Pittsburgh Association for the Education of Young Children. This conference took place in the midst of the absolute craze for dinosaurs reflected on television, in toys, and in every preschool classroom in the land. Lilian said, “Let’s call a one-year moratorium on dinosaurs.” I remember thinking, “My—that’s *it!* This statement just makes such good sense!”

In sum, there are continued themes that have surfaced in this paper and in my mind as I prepared it: There are few, if any, scholars in early childhood whose work is so grounded in a theoretical and empirical knowledge base, yet in a way that is critical and sensitive to change and contextual factors. And yet, simply getting down to it makes such eminent good—not common—sense. It also offers promise to address the fundamental issue brought up at the beginning: the knowledge we currently hold about what contributes to positive child development must be put into radically improved practice through more effective teacher preparation.

Acknowledgments

This paper is dedicated to Dr. Lilian Katz with both respect—for her extraordinary contribution to theory and practice of early childhood education—and apology—for those inevitable distortions and omissions that occur when attempting to synthesize and codify a large and complex body of work.

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