Chapter 1 - Integration of Theory, Research, and Practice: A Social Cognitive Perspective

Robert W. Lent

University of Maryland, College Park

The conferences of the Society of Vocational Psychology (SVP) are always wonderful occasions for sharing ideas with colleagues, both old and new. In some ways, the focus of the current conference on integration takes us back full circle to the very first SVP conference, held nearly 25 years ago at Michigan State University. Actually, we had not yet adopted the current society name at that time, but the energy behind the creation of a vocational psychology collective was clearly in evidence. That 1992 conference, chaired by Mark Savickas and myself, included contributions by many of the most influential career theorists of the last century, including Edward Bordin, Rene Dawis, John Holland, John Krumboltz, and Donald Super. For me, that first conference holds some very special memories.

In addition to the heady experience of getting to meet and listen to each of these foundational theorists, that conference was special for me in that it provided the occasion for social cognitive career theory's (SCCT) first public test drive (Lent & Hackett, 1994). We subsequently presented SCCT's interest, choice, and performance models in greater detail (Lent, Brown, & Hackett, 1994, 2000), and we later added segments focusing on satisfaction/well-being and self-management of adaptive career behaviors (Lent & Brown, 2006a, 2008, 2013). It has been exciting to be a part of the theory's growth and to witness the many applications of SCCT by creative researchers and practitioners.

By saying that SVP's conferences have come full circle, I may be overstating the case just a bit. At the Michigan State conference, we were concerned with highlighting prospects for convergence among career development theories. That is, a major goal was to identify instances in which the theories focused on similar outcomes, suggesting the potential for crafting more comprehensive explanations by fashioning bridges among the theories (see Savickas & Lent, 1994). This was the spirit in which SCCT was developed—to help integrate seemingly disparate views on career behavior by highlighting their common themes and elements. The integration, or convergence, agenda was also aimed at stimulating research on the intersection among the theories and on building more practice-friendly theoretical frameworks.

While I am tempted to invoke that wonderful old Yogi Berra line, "It's like déjà vu all over again," that would not quite capture the goals of the 2016 SVP conference. Rather than encouraging a dialogue about integration across theories, this conference, as I understand it, was aimed at integration within theories. This understanding emerged when I asked Jim Sampson to clarify what the conference organizers meant by the integration of theory, research, and practice. I asked, "Are you looking, for example, to integrate all or some theories together? Or to better articulate the connections between each theory, its research base, and practical

applications? Both? Neither?" (R. W. Lent, personal communication, September 27, 2015). Jim responded, "We are not looking for the integration of all or some of the theories together. Rather, we are interested in better articulating the connections between each theory, relevant research, and practical applications" (J. P. Sampson, personal communication, October 23, 2015). With this understanding in mind, I will consider the relevance, challenges, and opportunities of integration from my perspective as one of SCCT's developers.

The Relevance of Integrating Theory, Research, and Practice

Career development theories, like other types of psychological theory, attempt to explain important aspects of human behavior. Explanation is typically their raison d'être. In the case of career theories, the focus is on explaining how people develop and function in the context of career preparation, entry, and/or adjustment. Different career theories may focus on different pieces of the larger puzzle or may be concerned with somewhat different outcomes, such as career choice, work satisfaction, or career adaptability. But all try to offer a framework for understanding meaningful aspects of career behavior. From a purely scientific perspective, psychological theories do not need to do more than that—that is, to help us understand parts of the human experience.

To be most viable, again from a scientific perspective, it is important for theories to offer testable hypotheses. These hypotheses can generate research that leads to inferences about the theory's utility, generalizability, and limitations. Disconfirming findings may give rise to further research on effect size moderators (i.e., study of the conditions under which certain relationships are more or less likely to occur) or may prompt theory revision or abandonment. We do not always demand that career development theories contain clear hypotheses, but this is an essential feature if we wish them to be more than thought-provoking points of view or conjecture—if we wish to know how well they actually conform with data.

Career development is, of course, not typically approached as a basic science endeavor; it is an applied science. As such, we usually expect our theories to do more than explain things. We like them to offer ideas that we can translate into practice. But it is important to remember that theories do not have to have immediate implications for practice. As many examples from physics or other basic sciences demonstrate, if we build fruitful theories, practical applications are likely to come about in time, whether or not they were initially foreseen by their theorists. It is, therefore, helpful but not absolutely essential for career theories to be designed with off-the-shelf practice methods in mind.

Looking back at the first SVP conference, Savickas (1994, p. 240) observed, "One of the outcomes of the convergence project was widespread agreement that we have theories of career development but not theories of career counseling. This could be true, yet I am not sure." In fact, theories of career development are not equivalent to theories of career counseling, nor do I believe that they need to be. A theory can focus, for example, on how interests develop or function without prescribing how interests can be assessed, matched to occupations, or modified in practice. However, our enduring career development theories generally have informed practice, for example, by generating useful assessment devices or counseling activities. An important caveat is that such theory translation is often an off-shoot (rather than a designed feature) of the theory, and it may be implemented by creative and well-informed practitioners apart from the theorists themselves. For example, in the case of SCCT, our primary goal was to create a set of clear hypotheses to guide research on, and aid understanding of, particular aspects of career development (Lent et al., 1994). SCCT was not explicitly designed as a theory of practice in the sense of prescribing specific counseling actions, yet theory-linked interventions soon emerged and have expanded over time (see Sheu & Lent, 2015, for a recent review).

Is it important, then, to be concerned with "articulating the connections between each theory, relevant research, and practical applications" (J. P. Sampson, personal communication, October 23, 2015)? My answer is both "yes" and "it depends." From the perspective of SCCT, which was designed to be responsive to research and practice, it is quite important to ensure that the theory is both testable and useable. From the perspective of psychological science more broadly, it depends on what a theory is designed to do. In theory, a theory could offer a valuable window on career behavior without having clear or immediate implications for career practitioners. In practice, such theories are not very

likely to emerge because career theory developers tend to be scientist-practitioners who are motivated, at least in part, to come up with better ways to help people to select and pursue career paths. But it is important, I think, to celebrate diversity in our theories as well as in our clients—and to not judge career theories only in terms of their immediate relevance to practice, unless, of course, they are designed explicitly as theories of practice. And, even then, the decision about how to intervene presupposes an explanation of more basic career development processes (i.e., what should be changed to promote what type of career progress?).

The Challenges in Integrating Theory, Research, and Practice

The challenges here can perhaps be usefully divided into those that involve articulating connections between (a) theory and research, (b) theory and practice, and (c) (theory-based) research and practice.

Theory-Research Linkages

Career scholars sometimes offer compelling arguments and ideas yet without necessarily defining their central concepts clearly, showing how they can be operationalized, or translating their assumptions into a set of hypotheses that specify the nature of the relationships among variables, which can then be tested in research. The presence or absence of specific, testable propositions is a key part of what distinguishes a conceptual perspective from a formal theory. This is by no means intended to disparage the framing of provocative perspectives or points of view on career behavior; neither is it intended to discourage exploratory research. Indeed, theoretical perspectives sometimes evolve into formal theories and many important scientific advances have been made via exploratory or discovery-oriented research. However, theory-based research is facilitated by the provision of clear, specific, and testable hypotheses. In developing SCCT, we used as our models prior theories that had offered explicit predictions or causal assumptions (e.g., Dawis, 2005; Holland, 1997).

Theory-Practice Linkages

As suggested above, it is not writ in stone that a career development theory needs to offer practical implications, either immediately or even eventually. Although it is hard to imagine that those who design career development theories are entirely uninterested in how their ideas can be applied to practice, practical applications may be more or less salient to a particular theory at the time the theory is developed or as the theory evolves over time. Super's theory is a good case in point. As Super's theory developed over time, it spawned a variety of useful assessment devices and, eventually, an explicit model of practice, the career-development assessment and counseling (C-DAC) model (Hartung, 2013). However, such theory-practice linkages are impeded, at least temporarily, when theorists do not offer speculations, hypotheses, or case examples showing how their theories can be applied to practice.

Research-Practice Linkages

As with theory, not all research is designed to have immediate applications to practice. Research can, for example, be designed to test particular theoretical hypotheses or to examine how a particular theoretical model fits the experiences of a novel group of participants. Some research can therefore be described as "practice-far" and may be part of a larger program of inquiry that is intended, more immediately, to test the theory, with impact on practice perhaps being a longer term goal. Problems may arise, however, when career practitioners do not see the practice light at the end of the research tunnel or when researchers do not make a credible effort of highlighting what practical implications their findings may have. Both theory-practice and research-practice linkages are also hindered when theorists and researchers do not interact or collaborate with practitioners, thereby perpetuating science-practice gaps and fueling practitioner frustrations with the academic literature.

Opportunities and Recommendations for Integrating Theory, Research, and Practice

The conference organizers asked me to address opportunities and recommendations for integrating theory, research, and practice under separate headings. However, I find it helpful to translate these issues into

the twin categories of "what we can do" and "how we can do it," and will therefore discuss them together in this section. I was also asked to discuss "how theorists, researchers, practitioners, professional associations, and policy makers can better cope with challenges and maximize opportunities in integrating theory, research, and practice." I will consider various configurations of these groups in this section because they can be seen as overlapping entities (e.g., theorists and researchers can also be practitioners and members of professional associations) for whom similar opportunities, challenges, and recommendations may be relevant.

Theorists and Researchers

As I hinted earlier, theorists can increase the likelihood that their theories will stimulate research if they define their constructs clearly, provide examples of how these constructs can be measured or otherwise studied, and frame their key assumptions in the form of clear, testable hypotheses. I attribute much of SCCT's success at generating research to the following elements: First, we defined our constructs in relation either to existing career constructs (e.g., interests, goals, abilities) or to well-delineated social cognitive variables (e.g., self-efficacy, outcome expectations). Second, we initially offered broad propositions and more specific hypotheses, supplemented by path diagrams, reflecting our notions about how the constructs should relate to one another. These predictive or causal assumptions were based on prior findings, relevant theory, and/or our experiences as career practitioners. Not all of our educated guesses were substantiated (Lent, 2016), but they at least provided a reasonably clear starting point for research. Third, we developed or adapted measures to operationalize our constructs so that we and others could research them.

This last point represents a continual challenge for SCCT-based research because the constructs are assumed to be domain, situation, and/or task specific. This means that new or adapted measures are typically required when one wishes to study the theory's predictions in the context of a novel application. We soon started receiving many requests for our early measures from graduate students and young scholars—and they eventually became the leading producers of SCCT research. We later created a guide summarizing what we had learned about how to measure social cognitive constructs (Lent & Brown,

2006b) and we routinely share it with those who request our measures or measurement advice.

Parenthetically, in our experience, free measures (i.e., ones shared without cost) really help to jumpstart research. Vocational researchers do not tend to have very deep pockets or sizeable grants; nor in our value system, should the exchange of ideas become secondary to commercial interests. The moral of the story? To facilitate theory-based research, it helps to offer clear predictions and (free) measurement or intervention samples. Other theorists and researchers we admire also tend to "give psychology away," though we certainly understand why some practice-focused measures may require commercial fees, particularly if expensive, periodic revisions are needed for them to remain current. Fortunately, we now have practice tools, like the O*NET, and websites maintained by vocational psychologists that also give career materials away, thereby making them available to a wider range of researchers and practitioners.

Theorists do not necessarily need to be active researchers themselves but it does help to be able to model how the theory can be studied. When theorists are not actively engaged in research testing their ideas, it helps to collaborate with researchers. I believe that some very clever theories may have failed to reach their empirical potential for lack of some direct research modeling by their theorists. Perhaps it is less a matter of "build it and they will come" than it is "start it and show them how to get there."

The Theorist-Researcher-Practitioner Triad and Professional Associations

It has long been argued that engaging practitioners in the process of generating theory and research is crucial to closing the gaps between career theory, research, and practice (e.g., see Savickas & Lent, 1994). This, of course, is easier said than done, in part because though the motivations and preferred activities of theorists, researchers, and practitioners can overlap, they are also somewhat distinct. Numbers of publications and citation counts may be de rigueur in academia but do not cut it in "the real world" of practice, where success is marked by one's ability to aid clients more directly and immediately. It is no wonder, then, that many career practitioners lose enthusiasm for theory and research

immediately after completing their required studies, if not before.

I think I get it. I started out my career as a practitioner before adding the academic role and I quickly discovered that counseling can be more art than science. If clients are supposed to conform exclusively to the template of one theory or another, many of us practitioners may have missed that memo. We typically need to improvise based on clients' needs and the immediacy of a given session. Practitioners, out of necessity, learn to mix and match theories—and fill in with our implicit theories when the "off-the-rack" variety does not seem to apply. While some degree of theory improvisation is unavoidable (and even desirable given the complexity of our clients and our still-evolving knowledge of career behavior), I am convinced that we can do more to make our theories and research more responsive to practice—and our practice more responsive to theory and research. None of my ideas are strikingly novel, and some may not even be terribly practical. But I suppose that is what happens when you ask a theorist to get real.

First, and most fundamentally, it seems to me that the three sides of the theory-research-practice triangle need to be in communication with one another. Theorists and researchers need (at minimum) to rub shoulders with practitioners and to engage in serious dialogue about practical client issues. While some theorists and researchers are also practitioners, and thus quite sensitive to the need for practical science, there is often a temptation to be dazzled by intellectually juicy ideas and complex research methods that are far removed from the interests of most practitioners. This can result in highly elaborate conceptual models, research designs, and statistical analyses, the practical implications of which may stump even those who produce them. I am not implying that our inquiry always needs to be simple (or immediately practical)—indeed, reality does not always cooperate with simple explanations—but there are undoubtedly times when "less is more" and simpler works just as well (Brown, 2015).

As a natural corrective to the "bright lights, big city" allure of complex theories and research methods, it would help, I think, to encourage more routine dialogue and joint efforts between theorists, researchers, and practitioners. This can be done both at a "local level"

and via the facilitation of our professional associations and their leaders. By local level, I am thinking of modest efforts to bring the three groups together in joint projects. For example, Steve Brown and I have been planning to do an "SCCT in practice" book in which we will invite practitioners to describe novel applications of SCCT to different client groups and using different intervention modalities. We intend to ask practitioners to discuss the theory's utility and how SCCT might be revised to address their and their clients' needs. Less formal discussion groups, bringing representatives of the three sides together, can also be organized at the local level.

Professional organizations and journals can perhaps play an even more significant role in promoting three-sided interactions. It is fairly obvious that we tend to gravitate toward different professional "silos" with, for example, academics in vocational psychology being more likely to identify with SVP and APA and to subscribe to research journals. By contrast, career practitioners, particularly if they attended masters' level counselor education programs, may be more likely to join NCDA and ACA and read more practitioner-friendly journals. Speaking for myself, when I attend NCDA meetings (which I could stand to do more often), I usually find my eyes wandering toward the more science-focused programs on the schedule. I need to actively remind myself to leave my comfort zone and to seek out practice-oriented programs, too. I am usually glad when I do because I invariably get exposed to new ideas and interesting people that way.

I suspect I am not alone in this sort of affiliative tendency. In fact, if there is any validity to Holland's RIASEC theory (and research clearly shows that there is; Nauta, 2013), there is every reason to expect that "birds of a feather will flock together." Translation: We tend to seek environments containing others who we think will share our interests. While the problem might be oversimplified as one of bridging the gap between Artistic/ Investigative and Social types, the happy reality is that many career theorists, researchers, and practitioners have A, I, and S tendencies as a part of their Holland codes, though the rank ordering may differ. For example, all three types of professionals tend to prize artistic/creative and social (helping/teaching) pursuits, though not all may have prominent science interests. We may not need to find wholly different ways of communicating with one another but may rather need to locate the lingua

franca in which we can all converse. For some theorists, for example, it may be a bit like speaking "Social" as a second (or third) language. It may not be entirely foreign, but it may require a bit more effort.

Professional organizations and journals can address the science-practice gap by helping us to transcend some of our natural flocking tendencies. For example, whole conferences, or at least sessions within conferences, can be structured around theory-research-practice dialogues. Membership dues discounts can be arranged to incentivize memberships in both science and practice-oriented (e.g., SVP, NCDA) associations. Our journals can promote "science into practice" (or vice versa) projects or ongoing dialogues via special issues, sections, or ongoing columns. Such ideas are not necessarily new and none is a silver bullet. For instance, the second SVP conference, at Ohio State in 1994, was directed at closing the career science-practice gap. Likewise, some of our professional leaders, such as Janet Lenz, David Blustein, Mark Savickas, Mark Pope, and Barry Chung, have worked hard to "integrate" the places where career scientists or practitioners tend to congregate (especially SVP, NCDA, and IAEVG). These efforts have, I believe, done much good and deserve renewed commitment.

Although face-to-face dialogue is an obvious antidote for a lack of communication, there are also other means for addressing the science-practice gap. For example, theorists can work harder at showcasing the practical applications of their theories via the use of case examples in their publications or presentations. They can also seek opportunities to publish in practice journals and to collaborate with practitioners to design and test theory-based interventions. Creative theory-into-research and practice projects, such as SCCT-based interventions with underserved persons can be publicized (work by Ali, Byars-Winston, Chronister, Varghese, and others comes to mind here).

Practitioners can create "book and journal groups" to discuss relevant theoretical ideas and research findings. Researchers can be encouraged to devote some of their considerable creativity to expanding the requisite, pro forma "practical implications paragraph" that often appears at the end of research reports. This suggestion would profit from editorial policies that place more of a premium on science-practice translation. Online journals and blogs can serve as practitioner digests that help readers tap the clinical implications of scientific findings. Other technological tools may also be useful in this effort; those who are digital natives may have lots to offer here. Training programs can employ "didactic practica" models that merge coverage of theory and research along with practice in the same course. Finally, while I am not a huge fan of treatment manuals (because of their tendency to oversimplify client issues), these, too, may have some useful roles to play in connecting theory and research to practice.

Policy Makers

Policy makers can be in a position to take our career theories, research, and interventions and apply them on a far grander scale, with the potential for much greater good than most of us can ever imagine as individual theorists, researchers, and practitioners. The limited personal contact I have had with policy makers has involved a few government agencies that are concerned with increasing the workforce diversity of STEM fields via educational programs, career services, or research funding. With the exception of funding agency representatives, who generally (but not always) understand the slow and plodding pace of research leading to practical solutions, I have sometimes been frustrated by the differences in tactics I have encountered at government agencies that employ scientists and practitioners.

For example, one government agency representative, whom I generally had much in common with at a values level, told me that my effort to write a "white paper" on the policy implications of SCCT suffered from my use of tentative language. Where I used hedge words like may or summarized findings in terms of relationships between variables or effect sizes, she felt my writing would be much more persuasive if I could just drop the pretense and state more definitively, in essence, that "research shows that X causes Y and, therefore, we need programs that will change X in group Z." We had some lively discussions about the limits of research designs, the state of current findings, and my commitment to professional ethics, but we never satisfactorily bridged our fundamental gap. You can call me overly cautious but, in my world, though data may not be able to speak entirely for themselves, there is a

point at which it becomes imprudent to say too much on their behalf.

At the same time, I fully appreciate that policy requires definitive decisions, such as "should we fund this type of program or that type of program for attracting more women into engineering?" Probabilistic scientific summaries may be only so helpful in a binary (do this or do that?) context. If policy makers and politicians are to base such decisions on more than opinion or rhetoric, we need to find a way to communicate our findings to them. Now, we do have professional leaders who likely do a better job than I do of speaking with policy makers, highlighting the policy relevance of the field's theory and research, and thereby create a place at the policy table for career science and practice. People such as Scott Solberg come to mind. We need to support their efforts and thank them for playing this vital role. Indeed, we need to create more of them. Without them, we will continue to sing largely to our own choir.

Conclusion

Although concerns about how to improve theory-research-practice linkages are not new to our field, and while I believe we have made some progress in addressing them, we still have a long way to go. Projects like the present one keep the heat turned up and prevent us from remaining cloistered in separate silos. But, as in the rest of life, actions generally speak louder than words. I have offered my take on how to bridge certain differences that may be daunting but are not irreconcilable. At the end of the day, theorists, researchers, and practitioners generally want many of the same things—especially, to find better ways of helping clients on their career journeys—though we may approach this objective from different angles.

From a social cognitive perspective, the challenge of promoting theory-research-practice linkages can be defined as an overarching or distal goal that can best be divided into proximal sub-goals that are stated clearly, specifically, and publicly. SCCT holds that goals are most likely to lead to actions when necessary environmental supports can be marshalled and when barriers are identified and neutralized via appropriate coping strategies. Because the sort of goal we are talking about is a collective one, it is probably best approached in a collective way. I therefore see concerted, organized,

and sustained efforts by our professional leaders and organizations as offering perhaps the most fruitful means for facilitating connections between theory, research, and practice.

References

Brown, S. D. (2015). On statistical wizardry, construct proliferation, and other challenges to our science. *The Counseling Psychologist, 43,* 614–628.

Dawis, R. V. (2005). The Minnesota theory of work adjustment. In S. D. Brown & R. W. Lent (Eds.), *Career development and counseling: Putting theory and research to work* (pp. 3–23). New York: Wiley.

Hartung, P. J. (2013). The life-span, life-space theory of careers. In S. D. Brown & R. W. Lent (Eds.), *Career development and counseling: Putting theory and research to work* (2nd ed., pp. 83–113). New York: Wiley.

Holland, J. L. (1997). *Making vocational choices: A theory of vocational personalities and work environments* (3rd ed.). Odessa, FL: Psychological Assessment Resources.

Lent, R. W. (2016). Self-efficacy in a relational world: Social cognitive mechanisms of adaptation and development. *The Counseling Psychologist, 44,* 573–594.

Lent, R. W., & Brown, S. D. (2006a). Integrating person and situation perspectives on work satisfaction: A social-cognitive view. *Journal of Vocational Behavior, 69,* 236–247.

Lent, R. W., & Brown, S. D. (2006b). On conceptualizing and assessing social cognitive constructs in career research: A measurement guide. *Journal of Career Assessment, 14,* 12–35.

Lent, R. W., & Brown, S. D. (2008). Social cognitive career theory and subjective well-being in the context of work. *Journal of Career Assessment, 16,* 6–21.

Lent, R. W., & Brown, S. D. (2013). Social cognitive model of career self-management: Toward a unifying view of adaptive career behavior across the life span. *Journal of Counseling Psychology, 60,* 557–568.

Lent, R. W., Brown, S. D., & Hackett, G. (1994). Toward a unifying social cognitive theory of career and

academic interest, choice, and performance [Monograph]. *Journal of Vocational Behavior, 45,* 79–122.

Lent, R. W., Brown, S. D., & Hackett, G. (2000). Contextual supports and barriers to career choice: A social cognitive analysis. *Journal of Counseling Psychology, 47,* 36–49.

Lent, R. W., & Hackett, G. (1994). Sociocognitive mechanisms of personal agency in career development: Pantheoretical prospects. In M. L. Savickas & R. W. Lent (Eds.), *Convergence in career development theories: Implications for science and practice* (pp. 77–102). Palo Alto, CA: Consulting Psychologists Press.

Nauta, M. M. (2013). Holland's theory of vocational choice and adjustment. In S. D. Brown & R. W. Lent (Eds.), *Career development and counseling: Putting theory and research to work* (2nd ed., pp. 55–82). New York: Wiley.

Savickas, M. L. (1994). Convergence prompts theory renovation, research unification, and practice coherence. In M. L. Savickas & R. W. Lent (Eds.), *Convergence in career development theories: Implications for science and practice* (pp. 235–257). Palo Alto, CA: Consulting Psychologists Press.

Savickas, M. L., & Lent, R. W. (Eds.) (1994). *Convergence in career development theories: Implications for science and practice*. Palo Alto, CA: Consulting Psychologists Press.

Sheu, H-B., & Lent, R. W. (2015). A social cognitive perspective on career intervention. In P. J. Hartung, M. L. Savickas, & W. B. Walsh (Eds.), *APA handbook of career intervention: Foundations* (Volume 1, pp. 115–128). Washington, D.C.: American Psychological Association.