A View from the Editor’s Desk: Ensuring Quality in Theory, Research, and Practice

A Viewpoint of an Editorial Board member of the *Journal of Career Assessment*

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Journal of Career Assessment (JCA) provides methodologically sound, empirically based studies focusing on the process and techniques by which counselors gain understanding of the individual faced with making informed career decisions.

The journal covers the various techniques, tests, inventories, rating scales, interview schedules, surveys, and direct observational methods used in scientifically based practice to provide an improved understanding of career decision-making.
To be sure, my views do not represent those of Prof. Bruce W. Walsh (the editor of *JCA*) or other editorial board members. I am relying on my experience (as an author of 68 papers in . . .) and as the Editorial Board member of the:

- *Journal of Career Assessment*
- *Journal of Counseling Psychology*
- *The Counseling Psychologist*
- *The Journal of Vocational Behavior*
- *Career Development Quarterly*

And on my experience as an author and Ad-hoc reviewer for:

- *The British Journal of Guidance and Counselling*
- *Journal of Career Development*
- *The International Journal of Educational and Vocational Guidance*

Finally, I will focus on issues involving *career assessment*. 
So, let us focus on the interplay among...
Using *ICT* can Facilitate Integrating Theory, Research, and Practice

In my afternoon presentation (1pm) I will:

- Explore the role of *ICT* in improving the quality of *career* assessments
- Describe the role of *ICT* in designing evidence-based *career* interventions
- Demonstrate the contribution of *ICT* to the integration of *theory, research, and practice*
- Discuss the unique and critical role of *ICT* in facilitating the integration of *theory, research, and practice*
Ensuring Quality in Theory, Research, and Practice

Criteria for the quality of *Theories*

- Lead to testable (and refutable) predictions
- Stimulate research
- Have practical implications
Ensuring Quality in Theory, Research, and Practice

Criteria for the quality of Research

• Internal and external validity
• Appropriate participants
• Informative conclusions (with implications for theory and practice)
Ensuring Quality in Theory, Research, and Practice

Criteria for the quality of *Practice*

- Theory-based
- Client satisfaction
- Evidence-based (i.e., supported by research)
- Transferable interventions
Ensuring Quality in Theory, Research, and Practice

Types of papers in the JCA:

“Pure”

• Theoretical – relatively few (special issues)
• Empirical – most of the papers
• Practice-oriented – evaluation of interventions

“Combined”

• Theoretical and empirical – frequent
• Theoretical and practice-oriented – rare
• Empirical and practice-oriented – quite frequent

“Comprehensive”

• Theoretical, empirical, and practice-oriented – desirable but challenging
The Relevance of Integrating Theory, Research, and Practice

Integration has bi-directional implications:
Types of career-related assessments:

- **Unidimensional** (e.g., *Occupational Self-Efficacy*, short form; *Job satisfaction*)

- **Multidimensional**
  - without a total score (e.g., the *SDS* or the *NEO-PI /Big Five Inventory*)
  - with an informative total score (e.g., the *Career Thoughts Inventory*,
    the *Career Decision-making Self Efficacy scale*,
    the *Career Decision-making Difficulties Questionnaire*)
  - with an informative *partial* score (e.g., the *CDMP* –
    the *Career Decision Adaptability* score)
An Example of the Integration of Theory, Research, and Practice:

Dysfunctional Beliefs about Career decision-making
(Hechtlinger, Levin, & Gati, 2016)

Starting points:

Practice (Nevo, 1987): discussed 10 irrational expectations (we prefer to call them dysfunctional beliefs)

Theory: The cognitive therapy approach (Beck, 1976), which claims that dysfunctional thoughts have a crucial effect on behavior and feelings

and

Previous research . . .
Ensuring Quality in Theory, Research, and Practice

And the three optional starting points for integration:

- Theory
- Research
- Practice
An Example of the Integration of Practice, Theory, and Research

*Dysfunctional Beliefs about Career decision-making*

**Starting point 1: Practice** - Nevo’s (1987) 10 irrational expectations:

1. There is only one vocation in the world that is right for me
2. I cannot be happy if I don’t find my perfect vocation
3. Someone else can discover the best vocation for me
4. Intelligence tests will tell me how much I am worth
5. I must be an expert or very successful in the field of my work
6. I can do anything if I try hard, or I can’t do anything that doesn’t suit my talents
7. My vocation has to satisfy the important people in my life
8. Entering a vocation will solve all my problems
9. I must sense intuitively that this vocation is right for me
10. Choosing a vocation is a one-time act

These 10 items can be categories into 4 groups:

- Concerning vocations (1-2)
- Concerning career counselors and tests (3-4)
- Concerning the self (5-8)
- Concerning the decision-making process (9-10)
Starting point 2: Previous research using the Career Decision-making Difficulties Questionnaire (CDDQ)

- Low internal consistency reliability of the *dysfunctional beliefs (DB)* scale of the *CDDQ* – low intercorrelations among the 4 items (e.g., Gati, Osipow, & Krausz, 1996; Xu & Tracey, 2015)

- The *DB* scale score is among the *highest scale scores* in the *CDDQ* (e.g., Mau, 2001; Gati, Ryzhik, & Vertsberger, 2013)

- Individuals have significantly *less awareness* of their difficulties in this category (in comparison to other difficulties involved in career decision-making; Amir & Gati, 2006; Kleiman & Gati 2004; Kleiman, Gati, Peterson, Sampson, Reardon, & Lenz, 2004)
The Integration of Theory, Research, and Practice: Dysfunctional Career Beliefs

Starting point 3 – Previous Measures involving Dysfunctional Career Beliefs

- **Career Thoughts Inventory (CTI)** – (48 items); 8 dimensions were derived from the Cognitive Information Processing approach, **3 scales emerged empirically** with 14, 10, 5 items per scale (Sampson, Peterson, Lenz, Reardon, & Saunders, 1996, 1998)

- **Career Beliefs Inventory (CBI)** – (96 items) **25 scales**, with 8 to 2 items per scale (Krumboltz, 1994)

- **Career Myths Scale (CMS)** – (27 items) **4 factors** emerged empirically with 7, 7, 2, 2 items per factor (Stead & Watson, 1991, 1993)

These studies highlight the need for a theoretically based and empirically supported multidimensional measure, focusing not on beliefs about careers in general, but on **Dysfunctional Beliefs about Career decision-making**
The Proposed Categories of *Dysfunctional Beliefs about Career decision-making* *(DBC)*

Next – Theoretically derived six categories of *dysfunctional beliefs* about career decision making:

- The role of *Chance or Fate* . . . . . . . . . . .
- The *Criticality* of the decision . .
- The aspiration for *Choice Perfection* . . .
- The role of *Significant Others* . . .
- The role of *Professional Help* . . . . . . . . .
- The impact of *Gender* . . .


**Results**

(Hechtlinger, Levin, & Gati, 2016)

**Study 1** – Results of EFA based on 937 young adults deliberating about their future career supported the six factors

<table>
<thead>
<tr>
<th>Scale</th>
<th>$C_\alpha$</th>
<th>% Of Variance accounted for</th>
</tr>
</thead>
<tbody>
<tr>
<td>Significant Others</td>
<td>.83</td>
<td>11</td>
</tr>
<tr>
<td>Chance or Fate</td>
<td>.75</td>
<td>10</td>
</tr>
<tr>
<td>Choice Perfectionism</td>
<td>.72</td>
<td>9</td>
</tr>
<tr>
<td>Gender</td>
<td>.84</td>
<td>11</td>
</tr>
<tr>
<td>Professional Help</td>
<td>.82</td>
<td>11</td>
</tr>
<tr>
<td>Criticality</td>
<td>.72</td>
<td>9</td>
</tr>
</tbody>
</table>
Results (Hechtlinger, Levin, & Gati, 2016)

Study 2a (N=617) Cluster analysis also supported the theoretical model
The Total *DBC* Score is NOT Informative

**Study 2b.** Fit indices for confirmatory factor analysis of the *Dysfunctional Beliefs about Career decision-making* questionnaire (*N*=634)

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$</th>
<th>df</th>
<th>$\chi^2$/df</th>
<th>CFI</th>
<th>RMSEA</th>
<th>SRMR</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-6-1</td>
<td>340.26</td>
<td>129</td>
<td>2.64</td>
<td>.94</td>
<td>.052</td>
<td>.045-.058</td>
</tr>
<tr>
<td>18-6</td>
<td>300.89</td>
<td>120</td>
<td>2.51</td>
<td>.95</td>
<td>.049</td>
<td>.043-.056</td>
</tr>
<tr>
<td>18-1</td>
<td>1674.76</td>
<td>135</td>
<td>12.41</td>
<td>.53</td>
<td>.136</td>
<td>.130-.142</td>
</tr>
</tbody>
</table>

CFI = comparative fit index  
RMSEA = root-mean-square error of approximation  
SRMR = standardized root-mean residual
### Results – The Informativeness of the Total DBC Score

**Study 2a+Study 2b.** Concurrent validity test also showed that the total score is not informative in predicting individuals’ career decision-making status ($N=1251$)

<table>
<thead>
<tr>
<th></th>
<th>Undecided (n=587)</th>
<th>Partially decided (n=520)</th>
<th>Decided (n=130)</th>
<th>F (2,1234)</th>
<th>$\eta^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total score</td>
<td>4.25 (1.14)</td>
<td>4.24 (1.08)</td>
<td>4.17 (1.11)</td>
<td>0.30</td>
<td>.00</td>
</tr>
</tbody>
</table>

$.00 \leq \eta^2$ for scales $\leq .08$
Implications for Practice

The *DBC questionnaire* is:

(1) theoretically based
(2) an empirically supported measure of individuals’ dysfunctional beliefs about career decision making
(3) has a reasonable number of scales (6 in the *DBC*)

Enables tailoring the intervention to the client’s specific dysfunctional beliefs about career decision making
The Challenges in Integrating Theory, Research, and Practice

- Explicating the theoretical rationale of assessments
- Promoting multidimensional assessments
- Testing the rationale and informativeness of the total score
- Using multiple approaches to assess the quality of measures
- Be meticulous about translated or adapted assessments
- Effectively incorporating multidimensional assessments into career counseling practice
Using **ICT** can facilitate the integration of **theory**, **research**, and **practice** by increasing access to appropriate groups (i.e., students deliberating about their major, seniors looking for a job, adults considering a career change).

- Experts’ knowledge can be translated into structured interventions (e.g., recommendations about how to deal with specific career decision-making difficulties).

- The effectiveness of these structured (and computerized) interventions can be measured (e.g., which types of difficulties can be reduced by what interventions to which individuals).

- The conclusions can be used to upgrade interventions and refine the theory.
Finally - RECOMMENDATIONS for JOURNAL EDITORIAL POLICY

Theories:
- Encourage **refuting** theories, not only confirming them
- Encourage **comparing** theories (e.g., the CIP and the PIC) in terms of their common and distinctive features

Research:
- Encourage **multidimensional** assessments
- Encourage **innovative** designs
- Encourage using **appropriate** groups of participants
- Encourage **multiple** studies

Practice:
- Encourage testing the **incremental** value of interventions and measures
- Encourage pinpointing the **specific components** of interventions that make a difference

General:
- Encourage dialogues (discussions / comments / reactions / rejoinders)
Thank You!

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www.cddq.org