

Affordances and Alignments: Continuing Challenges in Advising Undergraduate Psychology Majors

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R. Eric Landrum¹

Abstract

Challenges abound in providing accurate and useful information to prospective and declared psychology majors about their career options and how to make decisions that will lead to satisfying and rewarding postgraduate lives. One component of this challenge is that by majoring in psychology, career affordances (i.e., the opportunities and limitations inherent to psychology) lead to generalized opportunities that are available to many different disciplinary majors. Another component of this challenge is the alignment between students' self-reflection and understanding about career goals being aligned with accurate and available information about the desired careers. Understanding how affordances and alignments affect psychology major advising may provide a fruitful framework in moving forward to provide the best professional development resources possible.

Keywords

psychology majors, advising, affordance, alignment

Now more than ever before, it is vital that educators provide accurate and complete advice to prospective and declared psychology majors. There are (at least) three reasons for urgency in fulfilling students' unmet needs. First, there has been explosive growth in the popularity of the psychology major in the United States. In the past 65 years, the annual number of psychology baccalaureates awarded has increased more than 10-fold, from 9,569 bachelor's degrees awarded in 1949–1950 to 117,557 bachelor's degrees awarded in 2014–2015 (National Center for Education Statistics, 2017). Second, in the late 1990s and early 2000s, a transformational shift was detected with respect to accountability in higher education (Alexander, 2000; Ewell & Jones, 2006) and the role of assessment of student learning outcomes (Barr & Tagg, 1995). Rather than the perfunctory completion of credits to graduate, higher education institutions, legislators, and other constituencies began to ask questions about the value-added by a bachelor's degree, that is, what the actually student knows and is able to do. Third, the college degree itself is no longer the ultimate credential (Carnevale, Garcia, & Gulish, 2017); there is uncertainty about what a college degree represents. Employers are becoming more resentful about the necessity of additional training after college (i.e., skills gaps), and there is growing interest in the importance of skills for new college graduates (Hart Research Associates, 2015).

It is the intersection of these forces that beckons a clarion call to improve our (a) understanding of the pathways pursued by undergraduate psychology majors into the workforce and (b) advising to students, so that they may maximize their

undergraduate experiences and leverage their education for a better future. According to the American Psychological Association (APA, 2016), 45% of psychology baccalaureates eventually earn a graduate degree, though not necessarily in psychology. For those individuals who do earn a graduate degree, they become more specialized, sometimes with the goal of becoming a psychologist. This graduate-level career trajectory is similar to those of accounting majors becoming accountants, nursing majors becoming nurses, and so on; some psychology majors do become psychologists. However, the majority of psychology graduates *do not pursue* additional education beyond the bachelor's degree; I refer to individuals in this group as workforce graduates.

Affordances

There are two fundamental concepts that set the stage for the potential for effective advising and ultimately the success of psychology alumni: affordance and alignment. I believe that due to the nature and scope of undergraduate education in psychology, students are afforded opportunities with specific limitations. What is an affordance? Gibson (1977) described

¹Boise State University, Boise, ID, USA

Corresponding Author:

R. Eric Landrum, Boise State University (Education 619), Mail Stop 1715, 1910 University Drive, Boise, ID 83725, USA.
Email: elandru@boisestate.edu

Table 1. Examples of Highly Specialized Undergraduate Degree Programs.

Undergraduate Major/Program	Licensing Exam	Accreditation Body	Prototypical Job Title
Accounting	The Uniform Certified Public Accountant (CPA) Examination	National Association of State Boards of Accountancy	Accountant
Architect	Architect Registration Examination (ARE)	National Council of Architectural Registration Boards	Architect
Nursing	National Council Licensure Examination (NCLEX)	National Council of State Boards of Nursing	Nurse
Teacher Education	PRAXIS	State Departments of Education (40 states)	Teacher

the concept of affordances in regard to the properties of an environment that influence an animal's behavior (see also Chemero, 2003). In other words, the environment an animal lives in (the physical characteristics and resources available) influences an animal's behavioral options, or "the affordances of the environment are what it offers animals, what it provides or furnishes, for good or ill" (Gibson, 1977, p. 68). I posit that the discipline of psychology has career affordances, and psychology graduates have opportunities and limitations afforded them because of their selection of the psychology major. Furthermore, I believe there may be a theoretical continuum of disciplinary-based affordances that ranges from highly generalized to highly specialized. Different disciplines have different career affordances. For example, it seems clear that undergraduate students majoring in accounting become accountants, students majoring in architecture become architects, students majoring in nursing become nurses, and students majoring in teacher education become teachers. But what do psychology graduates become? There is no singly, unifying answer. Many lists of potential careers with a bachelor's degree in psychology exist; perhaps the most widely known list appears in Appendix E in the *APA Guidelines for the Undergraduate Psychology Major, Version 2.0* (APA, 2013). Individuals who seek employment and a career with a bachelor's degree in psychology have a wide variety of choices available, leveraging the high generalizability of the psychology baccalaureate. I contend that those who continue for graduate education in psychology become more specialized and focused on more prototypical, "psychologist-type" careers. In addition, I believe there are collegiate majors that afford high specialization in an undergraduate context. In fact, for each of the "high specialization" examples used in this essay (accountant, architect, nurse, and teacher), there is a national licensing examination and an accrediting organization; see Table 1 for more details.

The concept of affordances can now be operationalized as a continuum from highly generalized careers afforded by the undergraduate major to highly specialized careers afforded by the undergraduate major, as depicted in Figure 1.

If my inferences were supported with data, disciplines that fall to the right of the midpoint tend to be more specialized (e.g., accountant, architect, nurse, and teacher), whereas disciplines that fall to the left of the midpoint tend to be more generalized (e.g., psychology, philosophy, and sociology). Ultimately, it is critical to operationalize these terms, so that meaningful research is possible to confirm the hunches expressed here. In Table 2, I present some potential measures of the degree of specialization/generalization that an undergraduate discipline affords.

There are some available data that are from psychology researchers and from the general literature that support some of these contentions. Regarding psychology baccalaureates, starting salaries tend to be lower as compared to preprofessional and technical program graduates (Rajecki & Borden, 2011) and graduates report lower levels of job preparation as compared to other fields (Borden & Rajecki, 2000), perhaps due to the wide variety of jobs available for those with highly generalized training. In a direct comparison of the first-year employment outcomes of psychology baccalaureates and graduates from nursing, business, engineering, and education, psychology majors (a) more frequently had jobs that did not specifically require a college degree, (b) had lower salaries, and (c) reported lower ratings of job relatedness compared to undergraduate degree program (Rajecki & Borden, 2009). Carnevale, Cheah, and Strohl (2012) reported that majors that are closed tied to specific occupations tend to experience lower unemployment rates. Menand (2011) characterized it this way:

... advanced economies demand specialized knowledge and skills, and, since high school is aimed at the general learner, college is where people can be taught wthey they need in order to enter a vocation. A college degree in a nonliberal field signifies competence in a specific line of work. (p. 33)

The broad flexibility afforded to psychology graduates in selecting careers with high levels of generalization may be both a blessing and a curse. It may be a blessing because there are a wide variety of options available and the importance of understanding human behavior is pervasive throughout every workplace. It may be a curse because the opportunities are so generalized that students do not have a clearly identifiable job title to pursue, accurate career advising may be a challenge, and competition for nonspecialized jobs and careers may be elevated. You have likely heard the phrase "jack of all trades, master of none"—perhaps the modern-day less-eloquent equivalent for psychology baccalaureates is "jack of many different career paths, specialized training in none." That is not necessarily a good or bad situation, but psychology students need to know that it is what it is so that they can have accurate expectations and plan accordingly.

If the affordances continuum actually exists, it is interesting to note that some undergraduate programs in the United States

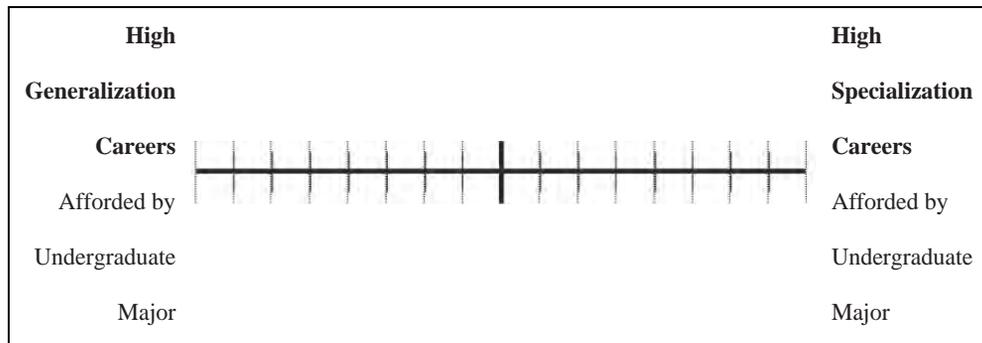


Figure 1. Hypothetical Affordances Continuum.

Table 2. Potential Behavioral Indicators/Variables Which Might Validate That Disciplines Have Affordances That Influence the Generalization/Specialization of Careers.

Indicators	High Generalization Afforded by Undergraduate Major (e.g., Psychology, Philosophy, and Sociology)	High Specialization Afforded by Undergraduate Major (e.g., Accountancy, Architecture, Nursing, and Teacher Education)
Number of job openings, available, number of applicants	Wide variety of job openings available with much competition from many sources and educational backgrounds	Tendency for fewer job openings available for specialized careers with competition from similarly licensed individuals
Accreditation of undergraduate education	Tend to not have undergraduate accreditation requirements	May have undergraduate accreditation body; typically require credentialing/licensing
Number of credits required for graduation	Typically the minimum institutional number to graduate	Often exceeds the institutional minimum number of credits to graduate
Ease of switching careers after graduation	Easier due to generalist/liberal arts focus; additional training (without return to formal education) may suffice for career switch	Not as easy due to specific training for specific career; may require more formal education (additional training alone may not suffice)
Starting salary and first job expectations	Vague understanding of first job expectations; lower starting salaries due to high competition from others with analogous skill sets	Good understanding of first job expectations; higher starting salaries due to specialized skills, credentialing, licensure

are making deliberate attempts to become more specialized at the undergraduate level. The labeling of the undergraduate opportunities varies, but they each offer a type of specialization (see Table 3 for examples of different specializations of undergraduate psychology programs).

Movement along the proposed horizontal, x-axis continuum is typically difficult, as careers are afforded by their respective disciplines. It is clear, however, from the examples offered in Table 3 that undergraduate programs do make purposeful effort to allow undergraduate students more specialized training. But affordances are only one part of the continuing challenges facing psychology majors; another key concept which relates directly to the importance of advising is the notion of alignment.

Alignment

Whereas affordances are about the career opportunities available to psychology bachelor’s degree recipients, in this context, alignment addresses how well the student understands what they want and how well their academic career choices match with meeting that career goal. For instance, when a student becomes a psychology major, they may know about what a

Table 3. Examples of Specializations in U.S. Undergraduate Psychology Degree Programs.

Institution	Type of Specialization
Pace University	Degree options in general psychology applied psychology/human relations, personality/social psychology, and biological psychology
Penn State	Concentrations within the psychology major such as life sciences, neuroscience, business, and quantitative skills
Webster University	Emphasis in mental health
Southern University	Substance abuse counseling focus
Trinity Washington University	Specializations in general, forensic, developmental, and social psychology

psychologist does (either from personal experience or television/media stereotypes). However, the majority of psychology graduates are entering a field of study in which they will not attain the “prototypical” job in psychology—a psychologist (APA, 2016). Thus, there could be a lack of alignment/misalignment between one’s undergraduate field of study and that person’s expectations about what they can do after earning the

bachelor's degree. In discussing the challenges psychology majors face in finding a job, Jeschke, Rajecski, and Johnson (2008) noted that the problem for psychology majors was not about job availability, but the challenges were (a) inability to articulate and demonstrate skills, (b) knowing about the job market and what employers want, (c) when the job possibilities are broad, knowing how to make a decision, and (d) student's often lacked career planning skills to be used throughout an undergraduate career. When someone laments publicly that "you cannot get a job with a bachelor's degree in psychology," of course this statement is wrong. A more complicated, nuanced statement would be "a bachelor's degree in psychology does not uniquely qualify you for a job, as many other social sciences majors will also be qualified for the job a psychology baccalaureate is qualified for." After adequate self-reflection and career exploration, when students know what they want to do, accurate advising is critical to allow the self-aware student to align their undergraduate education with the postgraduate career goal.

Just as I proposed a continuum for disciplinary affordances, I also posit that there is a continuum of alignment along a vertical, y-axis; see Figure 2 for a depiction.

In my view, levels of alignment have to do with two components: a student's understanding of what they want and accurate content knowledge about careers. Both components are needed to experience high alignment. High alignment means a match between expectations and outcomes, and that psychology graduates are working in and are successful in the type of job they expected to when they were undergraduates. This outcome was in part facilitated because of understanding of employment preferences (aided by accurate advising information and advisors) and meaningful self-reflection. Higher levels of alignment may lead to higher levels of career satisfaction and satisfaction with the undergraduate major. A high level of alignment might also help compensate for relatively low pay (e.g., teacher education). A low level of alignment means that there was a mismatch in expectations for students entering the major and the resulting careers gained as a graduate. The source of the mismatch may be that the student did not know what they really wanted, they did not know the details about particular career paths, information about potential career paths was not readily available or accurate, and so on. Low alignment means that expectations are not met, suggesting that the situation may be ripe for less desirable outcomes, such as low satisfaction and/or low pay.

Thus, students with matches between career expectations (in part due to high levels of self-understanding and accurate knowledge about career options) and actual career realized would be at the upper end of Figure 2. If there were evidence that the notion of alignments is accurate and that matches and mismatches exist, what would that evidence look like? In Table 4, I present some ideas on how to operationally define and measure the notion of alignment.

As with the section on affordances, the key to remember here is that these are mostly hypothetical constructs, and it is vitally important to seek empirical data to either support or refute such

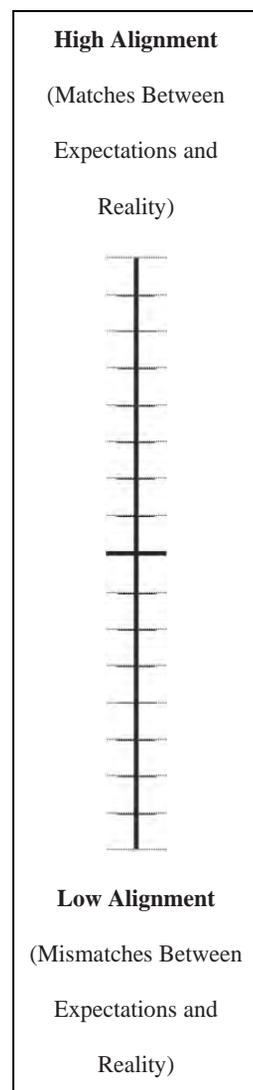


Figure 2. Hypothetical Alignment Continuum.

conjectures. There is an existing literature within psychology about alignment (although not called alignment in these studies), ranging from what to expect in the workplace (Landrum & Harrold, 2003; Woods, 1987) to critical reflection about careers in psychology (Briehl, Stanny, Jarvis, Darcy, & Belter, 2008). In a survey of graduates of various majors that asked the question "how closely does your current job relate to your major area of study," one possible response to this item was "not related." Answers on this item could be considered as one possible measure of alignment, with a higher percentage of "not related" indicating mismatches/misalignment. Here are the percentages by major of "not related" responses: health professions (1.3%), business (9.8%), fine arts (34.6%), psychology (37.3%), and other social sciences (56.5%; Rajecski, 2007).

Combining Affordances and Alignment

If these constructs of affordances and alignment exist and can be meaningfully defined and measured, considering these two

Table 4. Potential Behavioral Indicators/Variables Which Might Validate That Students Have Alignments That Influence Their Match or Mismatch Within a Career Path.

Indicators	Misalignment/Poorer Match	Alignment/Better Match
Career expectations after graduation	Does not know what to expect; did not engage in self-reflection about expectations	Has good idea about what to expect; has deeper self-understanding about career desires
Satisfaction with major, department, institution	Lower satisfaction in general	Generally higher levels of satisfaction
First job absenteeism and turnover rates	Absent more often, stays in first job shorter time, faster turnover	Absent less, stays in first job longer time, more engaged in the work
Starting salary and first job expectations	Did not know salary ranges, difficult to adjust compared to expected lifestyle; some entitlement bitterness	Did know salary ranges, lifestyle adjustments anticipated; lesser amounts of entitlement

dimensions simultaneously can yield fruitful observations; see Figure 3 for this depiction.

I suggest that it is much harder for departments to move horizontally than it is for individual students (and departments) to move vertically. Alignment and alignment problems (mismatches) can be solved with students' better understanding their career wants and goals, and faculty advisors can greatly contribute to these efforts by providing accurate career information. It is likely, however, that some of the information needed does not exist. For instance, there is no listing of the top 10 occupational titles in the United States for psychology workforce graduates only. In general, little research attention is paid to graduates who do not go on to graduate school in psychology (for a refreshing exception, see the Law School Admission Council at www.lsac.org), and there is generally much more research information available about the students who apply to graduate programs in psychology and ultimately attend graduate school.

It could be that if a nursing graduate or architecture graduate decides to change careers, because of the initial specificity of their undergraduate degree program, they could be at a disadvantage as compared to a psychology major who received generalized training, and thus the psychology graduate could retrain for a new career path more easily; these are empirical questions that need to be answered by researchers, so that advisors have accurate and relevant career information to share with prospective and declared psychology majors. Other questions that would be valuable to know the answers to for better advising include (1) what are the reasons that undergraduate students transfer into or out of the psychology major; (2) what is the prevalence of psychology baccalaureates who go on for

nonpsychology graduate training (e.g., law school, medical school, and veterinary school); (3) what is the career satisfaction for psychology baccalaureates 10 years and 20 years after commencement; would they major in psychology again?; and (4) perhaps the first job postgraduation lacked gratification, but what about second and third jobs later in the career? A national assessment of the psychology pipeline could be quite meaningful. In other words, would combining these individual dimensions make sense, be meaningful, and provide heuristic value and encourage future work in this area? Knowing our current location might help to inform the navigational path to an improved environment with desired affordances and matched alignments.

Broad Conclusions and Recommendations

Majoring in psychology is not without its detractors in the United States. In a highly visible case drawing national attention, the Board of Governors of the State University System of Florida questioned whether there were too many psychology majors (Halonen, 2011; Halonen & Dunn, 2018). Leading Florida educators collaborated to answer that question with respect to the popularity, utility, and rigor of the psychology major. Not only did this effort help to define the roles and values of a psychology undergraduate degree, but this scenario helps to highlight the importance of a discipline to be able to tell its own story, that is, can psychology educators articulate the beneficial effects of a bachelor's degree in psychology and back those opinions with empirical evidence? Although Halonen (2011) was able to eloquently defend the value of the bachelor's degree in psychology, challenges continue. Republican presidential candidate Jeb Bush suggested in 2015 that the typical psychology major will end up working in a Chick-fil-A, a national fast-food restaurant chain (Mills, 2015). These public assertions about the value of the psychology major emphasize the need for empirical data documenting the accomplishments and skills developed through the major, rather than just heartfelt beliefs by psychology educators.

However, the combination of generalized career affordances and relatively low alignments linked to student desire versus reality mismatches can place students the discipline of psychology in an at-risk condition; now add consistent growth in the major and limited resources about career paths, and the elements of a perfect storm may be swirling. If psychology educators cannot help students understand and apply the value-added by the psychology major, then the traditional education model is at risk (Kuh, Kinzie, Schuh, Whitt, & Associates, 2010). If there is no added advantage, then completely online programs, for-profit programs, and massively open online courses (MOOCs) can make claims of effectiveness without data, just as brick-and-mortar psychology departments are making the same claims now. Furthermore, researchers would do well to pay attention to potential differences between small schools and large schools. Large enrollment schools may be able to provide more opportunities to students, yet small enrollment schools may be able to be more innovative more

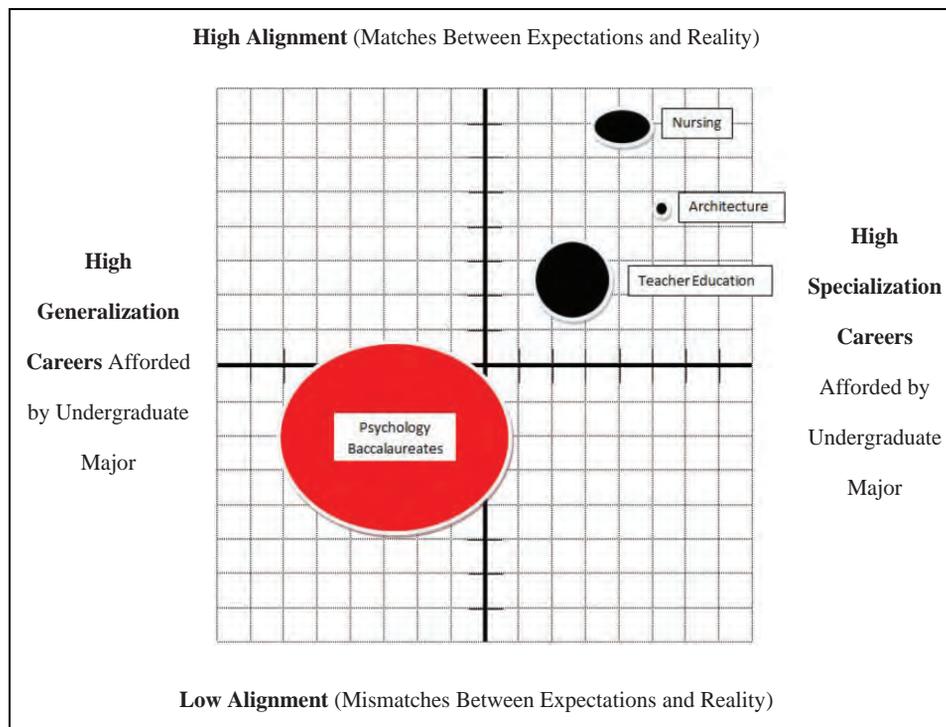


Figure 3. The Hypothetical Combination of Affordances and Alignment.

quickly with regard to specialty degrees and certifications. Ultimately, if psychology faculty want to provide better career advising information, then psychology faculty need to better connect with the local and national organizations that hire psychology baccalaureates; ideally, these types of efforts would be coordinated nationally by an organization with the infrastructure to support such efforts.

An emphasis on understanding careers for psychology baccalaureates has a long history (e.g., Edwards & Smith, 1988; Lunneborg & Wilson, 1985, 1987; Woods, 1987), but recent events in the short past have placed an additional focus on career development for undergraduate psychology majors. What would happen if faculty members knew more about future employer expectations and faculty could design course- and curriculum-based experiences which stayed true to the traditions of psychology education and provided students with real-world task-based experiences? Think of the added advantage that psychology graduates would have versus others entering the workforce. In some way, undergraduate experiences now mirror the types of tasks that future psychology graduate students will perform (conducting experiments, writing in APA format, substantial ethics training, and so on). What if the undergraduate psychology curriculum addressed the needs of the future workforce graduates, that is, the majority of psychology majors?

Our students need to be able to tell their success stories with data (credentials and badges), and departments of psychology need to be able to tell their success stories with data, not just the perfunctory 5-year outcomes assessment efforts, but meaningful data that link undergraduate coursework and high-impact

practices (internships, research assistantships) to persistence (graduation) and then followed into career satisfaction measures, satisfaction with undergraduate education, and ultimately enhanced quality of life. Psychology educators are no longer the singular providers of psychology content knowledge (MOOCs, online for profits, YouTube). If departments of psychology cannot articulate their added value to an undergraduate education compared to cheaper alternatives, then we are at risk (Kuh et al., 2010). Fortunately, in *Version 2.0* of the *APA Guidelines for the Undergraduate Psychology Major* (APA, 2013), professional development is clearly emphasized (Goal 5), and psychology educators should now have all of the necessary motivation to collectively invest in providing the best possible information about career options to all of our undergraduate majors.

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References

- American Psychological Association. (2013). *APA guidelines for the undergraduate psychology major: Version 2.0*. Washington, DC: Author. Retrieved from <http://www.apa.org/ed/precollege/undergrad/index.aspx>

- American Psychological Association. (2016). *What percentage of undergraduate psychology majors continue on to earn graduate degrees?* Retrieved from <http://www.apa.org/workforce/about/faq.aspx#II.3>
- Alexander, F. K. (2000). The changing face of accountability. *Journal of Higher Education, 71*, 411–431. doi:10.1080/00221546.2000.11778843
- Barr, R. B., & Tagg, J. (1995). From teaching to learning: A new paradigm for undergraduate education. *Change, 27*, 12–25.
- Borden, V. M. H., & Rajecki, D. W. (2000). First-year employment outcomes of psychology baccalaureates: Relatedness, preparedness, and prospects. *Teaching of Psychology, 27*, 164–168.
- Briehl, D. S., Stanny, C. J., Jarvis, K. A., Darcy, M., & Belter, R. W. (2008). Thinking critically about careers in psychology. In D. S. Dunn, J. S. Halonen, & R. A. Smith (Eds.), *Teaching critical thinking in psychology: A handbook of best practices* (pp. 225–234). Malden, MA: Blackwell.
- Carnevale, A. P., Cheah, B., & Strohl, J. (2012). *Hard times: Not all college degrees are created equal*. Georgetown University Center on Education and the Workforce. Retrieved from <http://www9.georgetown.edu/grad/gppi/hpi/cew/pdfs/Unemployment.Final.update1.pdf>
- Carnevale, A. P., Garcia, T. I., & Gulish, A. (2017). *Career pathways: Five ways to connect college and careers*. Center on Education and the Workforce. Washington, DC: Georgetown University.
- Chemero, A. (2003). An outline of a theory of affordances. *Ecological Psychology, 15*, 181–195.
- Edwards, J., & Smith, K. (1988). What skills and knowledge do potential employers value in baccalaureate psychologists? In P. J. Woods (Ed.), *Is psychology for them?* (pp. 102–111). Washington, DC: American Psychological Association.
- Ewell, P. T., & Jones, D. P. (2006). State-level accountability for higher education: On the edge of a transformation. *New Directions for Higher Education, 135*, 9–16. doi:10.1002/he.222
- Gibson, J. J. (1977). *The theory of affordances*. Hillsdale, NJ: Lawrence Erlbaum.
- Halonen, J. S. (2011). *Are there too many psychology majors?* White paper prepared for the staff of the State University System of Florida Board of Governors. Retrieved from http://www.cogdop.org/page_attachments/0000/0200/FLA_White_Paper_for_cogop_posting.pdf
- Halonen, J. S., & Dunn, D. S. (2018). Embedding career issues in advanced psychology major courses [Special section]. *Teaching of Psychology, 45*, 41–49.
- Hart Research Associates. (2015). Falling short? College learning and career success. *Association of American Colleges and Universities*. Retrieved from <https://www.aacu.org/sites/default/files/files/LEAP/2015employerstudentsurvey.pdf>
- Jeschke, M., Rajecki, D. W., & Johnson, K. (2008). Life beyond the bachelor's degree: A primer for psychology majors. *Indiana University-Purdue University at Indianapolis*. Retrieved from <http://www.psynt.iupui.edu/Users/kjohnson/bulletin/primer.htm>
- Kuh, G. D., Kinzie, J., Schuh, J. H., & Whitt, E. J., & Associates. (2010). *Student success in college: Creating conditions that matter* (2nd ed.). San Francisco, CA: Jossey-Bass.
- Landrum, R. E., & Harrold, R. (2003). What employers want from psychology graduates. *Teaching of Psychology, 30*, 131–133.
- Lunneborg, P. W., & Wilson, V. M. (1985). Would you major in psychology again? *Teaching of Psychology, 12*, 17–20.
- Lunneborg, P. W., & Wilson, V. M. (1987). Job satisfaction correlates for college graduates in psychology. In M. E. Ware & R. J. Millard (Eds.), *Handbook on student development: Advising, career development, and field placement* (pp. 158–160). Hillsdale, NJ: Lawrence Erlbaum.
- Menand, L. (2011, June 6). Live and learn: Why we have college. *The New Yorker*. Retrieved from http://www.newyorker.com/arts/critics/atlarge/2011/06/06/110606crat_atlarge_menand
- Mills, C. (2015, October 24). Jeb Bush: Psych majors work at Chick-fil-A. *Washington Examiner*. Retrieved from <http://www.washingtonexaminer.com/jeb-bush-psych-majors-work-at-chick-fil-a/article/2574851>
- National Center for Education Statistics. (2017). *Degrees in psychology conferred by postsecondary institutions, by level of degree and sex of student: Selected years, 1945-50 through 2014-15* [Table 325.80]. Retrieved from https://nces.ed.gov/programs/digest/d16/tables/dt16_325.80.asp?current=yes
- Rajecki, D. W. (2007, September 28). Liberal arts skills: Weak connections with career concerns at commencement. *UW Teaching Forum*. Retrieved from http://www.uwosh.edu/programs/teaching_forum/public_html/?module=displaystory&story_id=647&format=html
- Rajecki, D. W., & Borden, V. M. H. (2009). First-year employment outcomes of US psychology graduates revisited: Need for a degree, salary, and relatedness to major. *Psychology Learning and Teaching, 8*, 23–29.
- Rajecki, D. W., & Borden, V. M. H. (2011). Psychology degrees: Employment, wage, and career trajectory consequences. *Perspectives in Psychological Science, 6*, 321–335.
- Woods, P. J. (1987). A survival manual for new hires: What to expect in the workplace. In P. J. Woods (Ed.), *Is psychology for the major for you? Planning for your undergraduate years* (pp. 97–104). Washington, DC: American Psychological Association.