

## Office of Academic Affairs

9201 University City Blvd, Charlotte, NC 28223-0001 t/ 704.687.5717 f/ 704.687.1457 www.uncc.edu

October 20, 2016

Dr. Lisa Walker Faculty President UNC Charlotte

Dear Lisa,

In accordance with the procedure concerning the change of departmental names, I am forwarding a request from the College of Liberal Arts & Sciences to change the name of the Department of Psychology to the Department of Psychological Science.

The justification for the name change is attached. I ask that it be considered for faculty approval at the next Faculty Executive Committee meeting.

Sincerely,

Joan F. Lorden

Provost and Vice Chancellor for Academic Affairs

Attachment

cc: Nancy Gutierrez, Dean, College of Liberal Arts & Sciences

Fary Cachelin, Chair, Department of Psychology





Department of Psychology Phone: 704-687-1315 Fax: 704-687-1317

September 30, 2016

Dear Provost Lorden,

Attached please find the resubmission of the Department's request for a name change and CIP code change. Additional information and substantiation are highlighted in bold font within the text. I am also including the endorsement of the CLAS Faculty Council as well as several relevant resources.

I brought the original submission back to the department with your concerns, and the department remains committed to the name change. In terms of resources, we do not anticipate an increased need for university resources as a result of a name change; we expect that the cost to the department will be approximately \$3000 (business cards, etc.).

We hope the additional clarifications will be helpful. If you would like more information, please let us know. We would greatly appreciate receiving any feedback in writing.

Best regards,

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Fary Cachelin, Chair

Cc: Dean Nancy A. Gutierrez
Associate Dean Shawn Long



## Office of the Dean

9201-University City Boulevard, Charlotte, NC 28223-0001 t/704-687-0081 f/704-687-0089 http://clas.uncc.edu

## **MEMORANDUM**

TO:

Dr. Fary Cachelin,

Professor and Chair, Department of Psychology

FROM:

Dr. Shawn D. Long,

Associate Dean for Academic Affairs College of Liberal Arts and Sciences

RE:

Name change from "Department of Psychology" to "Department of

Psychological Science"

DATE:

February 26, 2016

I am pleased to inform you that the CLAS' Faculty Council endorsed the Department of Psychology's proposal to change the name of the unit from "Department of Psychology" to "Department of Psychological Science" at our monthly meeting on Friday, February 26, 2016. The majority of the council approved with the exception of one abstention and one opposed to the name change.

Per University Policy 602.9, Naming Opportunities, proposals to change the name of a department or school are considered at the campus level through the Provost and Chancellor in consultation with the University Faculty Council. The Chancellor has the final authority to establish or change the name of a department. All name changes of a department or school are subject to the requirements outlined in University Policy 602.9, Naming Opportunities.

Please let me know if you have any questions regarding this process.



Department of Psychology Phone: 704-687-1315 Fax: 704-687-1317

February 16, 2016 – Original submission October 5, 2016 - Resubmission

To:

Joan Lorden, PhD.

Provost and Vice President for Academic Affairs

**UNC Charlotte** 

From: Fary Cachelin, PhD.

Chair, Department of Psychology

RE:

Request to change name from Department of Psychology to Department of Psychological

Science. Request to become effective Fall 2017

## Request to change name from Department of Psychology to Department of Psychological Science

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## Overview

During the past several years, the Department of Psychology at UNC Charlotte has revised its curriculum to best reflect the goals of the program and department as well as the discipline. In Fall Semester 2012, the Bachelor of Arts in Psychology was deleted and the Bachelor of Science in Psychology became the only undergraduate degree option. This degree and curriculum change necessitated a re-evaluation of the student learning outcomes as well as the emphasis and intent of the program. As a result of that analysis, it has been determined that the current name, Department of Psychology, is not the most appropriate. Instead, a more fitting name reflecting our degree programs is Department of Psychological Science. Therefore, we are requesting our department name be changed accordingly.

As the attached articles by Jaffe and others describe, the Department of Psychology name fails to indicate where research in the field has been heading, is heading and will continue to head in the future (i.e., as a science). The traditional name is considered by many departments to be "old-fashioned," (incorrectly) denoting that the field centers around "mental healing."

The name change represents a rational and deliberate movement in the field to enhance the perception of psychology as a science. Leading institutions that have taken this step include: Dartmouth University's change to the Department of Psychological and Brain Sciences in the late 1990s; Brown University's change to the Department of Cognitive, Linguistic and Psychological Sciences in 2011; Duke University's change to the Department of Psychology and Neuroscience in 2006; Purdue University's change to the Department of Psychological Sciences in the early 1970s; Indiana University's change to the Department of Psychological

ana Brain Sciences; University of Colorado at Boulder's change to the Department of Psychology and Neuroscience in 2011; and others.

The brand "Psychological Science" reflects the training of our students at UNCC, signals the recognized place of psychology among the STEM disciplines, facilitates interdisciplinary collaborations, and represents the expertise of our faculty in the cognitive, health and organizational sciences (as well as reflecting the fact that 35/39 of our current faculty members are actively engaged in scientific research). Furthermore, this name change would support our strategic goals to continue to recruit talented faculty and graduate students, to attract external funding, and to grow in the trajectory of our aspirational institutions by becoming current with the times and keeping up with changes in the field that began over two decades ago.

## **Process**

The department's decision to change its name is the product of several years of thoughtful consideration and debate, and corresponds to a generational shift in the department's composition. First in 2011, in response to suggestions by several faculty members and the Advisory Committee, the Chair of the department brought the proposal to the general faculty meetings for discussion and deliberation. At the time, the department faculty was split in their views or ambivalent, and therefore the proposal was "shelved." The department underwent an external review study in 2014 and one of the recommendations was for the department to "rebrand" itself to better represent its growth and trajectory. Renaming the department was endorsed by the Dean's office as one of the department's strategic goals in 2015-2020. After further discussion and deliberation, the department met on January 29, 2016. At this meeting, a substantial majority vote of 19 in favor to 5 against was reached to change the department name. Subsequent discussion centered on the specific name chosen, Psychological Science or Psychological Sciences. A second unanimous vote was rendered for the name "Department of Psychological Science," which is in line with the flagship association, Association of Psychological Science (APS). The proposal subsequently received the support of the CLAS Faculty Council on February 26, 2016.

## Rationale

One of the recommendations from our May 2014 External Review Committee Report stated that:

Psychological research tells us that perceptions are difficult to change. In this case we refer to perceptions by UNCC undergraduates and, perhaps, faculty and staff outside the major of the rigor of psychology courses. Accordingly, it is important to persist in efforts to rebrand the department...

Correspondingly, the first goal of our new 2015-2020 Strategic Plan is to: Rebrand the Psychology Department to better communicate its scientific foundation and to allow potential majors to make more informed decisions about the appropriateness of the major for their career goals. The corresponding action plan is to investigate options to rename the department consistent with trends nationally.

By changing our department name to Psychological Science, we will more accurately represent the nature of our degree program as well as the current state of the discipline as a whole: <a href="http://www.apa.org/monitor/2015/03/advertising.aspx">http://www.apa.org/monitor/2015/03/advertising.aspx</a>. For our Bachelor of Science in Psychology degree, we adopted in 2012 the learning goals put forth by the American Psychological Association (APA) for undergraduate study in psychology (2012). Core to these learning goals are Scientific Inquiry and Critical Thinking, and Knowledge Base in Psychology. The knowledge base is composed of four major content areas: cognition and learning,

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required to complete statistics, a research methods core of two classes, physiological psychology, and a science with lab outside of Psychology. Knowledge base electives are in health sciences, cognitive sciences and industrial/organizational sciences. General Psychology with lab has for many years fulfilled the science plus lab requirement at UNCC, and Psychology is largely accepted now as a STEM discipline. "Science" is a component of all definitions of Psychology (e.g., Merriam-Webster, Medical Dictionary). By rebranding as the Department of Psychological Science we will better represent the nature of our programs to students, the larger university and broader community, and in this way achieve "truth in advertising" for our programs and discipline.

The name "Psychology" is essentially an outdated one, reflecting the traditional view of the discipline as a stand-alone field. The more current designation of "Psychological Science" reflects the discipline's acceptance as a "hub" or connector to the natural sciences (Cacioppo, 2007). Nationwide many departments of Psychology have made this name change, such as: Purdue University, Kent State University, University of Missouri, Western Kentucky, University of Vermont, Vanderbilt, Winston-Salem State University, Kansas State University, University of Arkansas, University of North Georgia and others. Similarly, the flagship international association for the discipline is named the Association for Psychological Science. Therefore, our request is a timely one and in keeping with national trends. Furthermore, there are indications that branding as "Psychological science" is viewed more favorably by international agencies funding visiting scholars and by national agencies providing federal funding. This name change will hence carry indirect benefits for our academic community as well.

## References:

American Psychological Association. (2013). APA guidelines for the undergraduate psychology major: Version 2.0. Retrieved from <a href="http://www.apa.org/ed/precollege/about/psymajor-guidelines.pdf">http://www.apa.org/ed/precollege/about/psymajor-guidelines.pdf</a>

Cacioppo, J. (2007). Psychology is a hub science. Observer, 20.

Jaffe, E. (2011). Identity shift: US psychology departments change their names to reflect the field. Observer, 24, 12-16.

Weir, Kirsten. (2015). Truth in advertising. Print version. Retrieved from <a href="http://www.apa.org/monitor/2015/03/advertising.aspx">http://www.apa.org/monitor/2015/03/advertising.aspx</a>



9201 University City Boulevard Charlotte, NC 28223-0001

Department of Psychology Phone: 704-687-1315 Fax: 704-687-1317

February 16, 2016

To:

Joan Lorden, PhD.

Provost and Vice President for Academic Affairs

**UNC** Charlotte

From: Fary Cachelin, PhD. Lachelin.

Chair, Department of Psychology

RE:

Request to change the CIP code designation for the Bachelor of Science in Psychology from: 42.0101 to 42.2799, Research and Experimental Psychology, Other. Request to

become effective Fall 2017

Request to change the CIP code designation for the Bachelor of Science in Psychology

During the past several years, the Department of Psychology at UNC Charlotte has revised its curriculum to best reflect the goals of the program and department as well as the discipline. In Fall Semester 2012, the Bachelor of Arts in Psychology was deleted and the Bachelor of Science in Psychology became the only undergraduate degree option. This degree and curriculum change necessitated a re-evaluation of the student learning outcomes as well as the emphasis and intent of the program. As a result of that analysis, it has been determined that the 42.0101 code is not the most appropriate for this degree program. Instead, a more fitting CIP code designation for the Bachelor of Science in Psychology has been identified. Therefore, we are requesting our program be assigned CIP code 42.2799, Research and Experimental Psychology, Other. Many departments of Psychology at comparable institutions in the region (e.g., Augusta University, Georgia College, Loyola University, Murray State University, University of North Florida, Westminster College, to name just a few) have made this CIP code change in the last few years.

## Rationale

For its Bachelor of Science in Psychology degree program, the Department of Psychology at UNC Charlotte has adopted the learning goals put forth by the American Psychological Association (APA) for undergraduate study in psychology. These learning goals were originally outlined in the APA Guidelines for the Undergraduate Psychology Major (American Psychological Association, 2007) and more recently in the APA Guidelines for the Undergraduate Psychology Major, Version 2.0 (American Psychological Association, 2012). The revised document delineates five learning goals with corresponding specific learning outcomes. The learning goals as put forth in the 2012 version are Scientific Inquiry and Critical

Knowledge Base in Psychology. The knowledge base is composed of four major content areas: cognition and learning, developmental, biological, and sociocultural. These four major content areas, as well as content related to the goal of Scientific Inquiry and Critical Thinking, each correspond to the CIP codes listed in the 42.27 field.

The remaining three learning goals correspond to skills that undergraduate students in psychology are expected to develop: ethical and social responsibility which addresses the application of ethical standards to evaluate psychological research and practice, and the promotion of values central to the development of trust and community building; communication which focuses on written and oral skills in formats appropriate for the discipline, audience and effective interactions; and professional competence which speaks to the application of psychological content and skills to career goals and direction, project management skills, teamwork capacity and self-efficacy and self-regulation. It should be evident that these last three goals have relevance to any discipline. So, it is the learning goal of Scientific Inquiry and Critical Thinking along with Knowledge Base in Psychology that are determining the most appropriate CIP code.

Although clearly overlapping with some of our program goals (and some of the APA guidelines), our current CIP code, 42.0101, specifically states that the program should *focus* on the "analysis and treatment of behavioral problems and disorders." Although many of our students do choose to take courses related to treatment and disorders, this is done only in addition to the main research and experimental core of our undergraduate curriculum in psychology. Importantly, the current code is clearly inappropriate for our students who choose to take very little, if any, specific courses in treatment or disorders (and who certainly cannot be described as "focusing" on disorders or treatment).

As noted above, all of our undergraduates receive a foundational curriculum that spans the theoretical and scientific basis of the discipline as reflected in the CIP codes 42.2701 thru 42.2709. The CIP codes 42.2701 thru 42.2709 are suitable designations for graduate programs that are specializing in one of these main content areas. However, undergraduate programs in psychology are not intended to provide focus on only one area. Thus, the general CIP code 42.2799, Research and Experimental Psychology, Other, is being requested since it corresponds to the content found in the 42.27 fields but allows for the broader-based coverage of the undergraduate degree program. In turn, this CIP code designation best reflects the student learning outcomes as determined by the APA guidelines and implemented within our Bachelor of Science in Psychology degree program.

## References:

American Psychological Association. (2013). APA guidelines for the undergraduate psychology major: Version 2.0. Retrieved from <a href="http://www.apa.org/ed/precollege/about/psymajor-guidelines.pdf">http://www.apa.org/ed/precollege/about/psymajor-guidelines.pdf</a>

Breckler, Steven. (2014). Calling psychology education what it is: STEM. Print version. Retrieved from <a href="http://www.apa.org/monitor/2014/07-08/sd.aspx">http://www.apa.org/monitor/2014/07-08/sd.aspx</a>

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## ODSELVED-School Issue

## Identity

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Psychology Departments Change Their Names

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US psychology departments change their names to reflect the field.

The new labels spell out what psychological scientists actually do.

n the late 1990s, the Department of Psychology at Dartmouth University became the Department of Psychological and Brain Sciences. Howard Hughes, who served as chair at the time, recalls the change as the result of a "little plot" he hatched with colleague (and APS Fellow) Todd Heatherton while sitting on a bench outside Silsby Hall, then the department's home. The word plot connotes a sinister air the scene most certainly lacked; still, it fits with the spirit of a discussion whose aim was to overthrow an existing establishment. "We thought just 'Department of Psychology' was a little old-fashioned," Hughes says. "We wanted a name that would give a little more luster."

The idea was that a new shine would help illuminate what research psychologists actually do. "We thought if we came up with a name change, it would help dispel people's misconceptions of what this business is all about," says Hughes. Sometimes this lack of understanding led people to question psychology's scientific basis, as was the case with parents who refused to believe their child could major in psychology and also be pre-med. Other times the confusion came from mistaking psychology for psychiatry. When Hughes first met the woman who became his mother-in-law, she often asked his advice for handling her "nervous tendencies."

"She would say, 'Harold, you're a psychiatrist. Why is it that ..." Hughes recalls. "And my wife would say, 'Mom, his name is Howard. And he's a psychologist."

The Department of Psychology name also failed to indicate where research was heading in the future. At Dartmouth of a decade ago, as at a number of universities, many faculty were tending toward the study of brain sciences, with the use of neuroimag-

ing already shifting from promise into practice. The department started a neuroscience major while Hughes was chair, and it has since developed a PhD track in cognitive neuroscience. "We thought it was a more accurate reflection of our aspirations, and of what we were actually becoming," says Hughes of the new name. The rest of the department concurred with the change, and in May of 1999 the change to Psychological and Brain Sciences was approved.

Plots of the sort hatched by Hughes and Heatherton are not entirely new — Purdue's department became Psychological Sciences in the early 1970s to make it clear "that we were a science, not an art," says current chair, Christopher Agnew — but lately they appear to be increasing in number. Indiana now has its own Department of Psychological and Brain Sciences. Northern Kentucky and Missouri have Departments of Psychological Science and Psychological Sciences, respectively. A recent merger at Duke led to the Department of Psychology and Neuroscience, and an even more recent one, at Brown, created the Department of Cognitive, Linguistic and Psychological Sciences.

Discussions with chairs and long-standing faculty at these departments confirm that the name changes represent something much closer to a rational movement than a mere coincidence. The exact reasons for changing vary by school, but broadly speaking they split into the two basic camps — by no means mutually exclusive — encompassed by Dartmouth's decision. Some departments have chosen new names chiefly to enhance the perception of psychology as a science, whereas others have done so to reflect the ongoing integration of behavioral and brain research. All of them recognize that the name Department of Psychology presents an inadequate picture of what goes on in many programs.

## Psychology's Image Problem

Misconceptions of what and how psychologists conduct research date back to the very early years of psychological study. In the early 20th century, Joseph Jastrow of the University of Wisconsin said the public saw psychology labs as places to research "mental healing, or telepathic mysteries, or spiritualistic performances." The perception shifted favorably after World War I, when psychologists were recognized for their contributions to the selection of servicemen and for their clinical efforts in treating shellshocked soldiers. But psychology failed to graduate from a "little science" to a "big science" at this time, in part because the field offered few practical solutions to the problems of the Great Depression. Outlining this history in a 1986 article for the American Psychologist — appropriately titled "Why Don't They Understand Us?" — APS Fellow Ludy T. Benjamin, Jr. of Texas A&M feared that the "longevity of psychology's image problem might suggest that it is insoluble."

**HELLO** my name is

<u>Psychology Department</u>
Psychology and Neuroscience

After World War II, psychologists began to study the public perception of their discipline for themselves. Results of the first such survey, conducted by Lester Guest, were published in 1948. From one set of questions, Guest found that 55 percent of people felt psychologists "should be called scientists" — a figure far above that of economists (roughly 27 percent), but also well below that of chemists (roughly 92 percent). Through a second set, Guest discovered a widespread belief that psychologists dealt primarily with abnormal behavior, which led him to conclude that people likely "make little or no distinction between psychologists and psychiatrists." A third questionnaire produced this gem of misperception: About a quarter of respondents believed psychologists could read people's minds.

In a 1986 review of similar research done since Guest's survey, Benjamin, with colleagues Wendy Wood and Melinda Jones, concluded that the general understanding

Eric Jaffe is a regular Observer contributor and author of The King's Best Highway: The Lost History of the Boston Post Road, the Route That Made America (Scribner, 2010).

of psychological research had improved in some ways but remained compromised in others. That finding was underscored by the results of a new survey performed by the three researchers. On one hand, about 84 percent of people agreed that psychology is a science. On the other hand, the idea of psychology as common sense persisted just as strongly; 83 percent of people believed that everyday life provided some psychological training. As a result, more than half of the respondents felt that psychology made no difference in their lives. "In short," the researchers wrote in the American Psychologist, "the public does not appear to have the understanding of psychologists' activities and their potential impact that most psychologists would desire."

The perception problem is not limited to the United States. A recent study led by Brenda Morales and Charles Abramson of Oklahoma State University, published in *Psychological Reports*, found that nearly three quarters of undergraduate students in Brazil agreed that psychological research is scientific, but only two in five agreed that such research was "necessary," and only a quarter felt counselors should be concerned with research findings. On the other side of the globe, the story remains the same. In a recent issue of the *Australian Psychologist*, Steve Hartwig and Catherine Delin report that psychologists were rated as the country's least-needed professionals from a group that included nurses, general practitioners, teachers, lawyers, and psychiatrists.

As recently as 1998, about the time Dartmouth hatched its name plot, the century-old image problem remained robust. That year a team of researchers led by Louis Janda of Old Dominion University published results of two public perception surveys in Professional Psychology: Research and Practice that compared psychology to biology, chemistry, economics, medicine, physics, and sociology. In the first survey, directed at the general public, Janda and his collaborators found that psychology ranked last on a question

of importance and finished above only economics and sociology on a perceived gap between experts and lay people. Of the 27 spontaneous comments elicited by this survey, 25 were about psychology, and all but one were negative — with most critics implying that people should trust common sense above psychological findings. The results of the second survey, directed at Old Dominion faculty, were even less favorable. On both the question of a discipline's importance and of its lay-expert gap, psychology ranked dead last.

## What the Field Is Really All About

Perilou Goddard feels the pain of Old Dominion from the campus of Northern Kentucky. At the university's Center for Integrative Natural Science and Mathematics, a program that encourages the teaching, learning, and outreach of various scientific disciplines ranging from chemistry to geology, psychology is explicitly not included. Part of the problem, says Goddard, is that many Northern Kentucky faculty limit their definition of a science to disciplines that use laboratory apparatus. She notes one exception to the center's general exclusion: a neuroscientist from the psychology department, who is accepted on the grounds that his research involves rats, neurons, chemicals, and the like.

"For a long time we've felt that our colleagues in the natural and physical sciences just don't get that psychology is a science," says Goddard, who was chair when the department at Northern Kentucky officially requested the name Psychological Science, in October 2008. "We got so tired of people talking about the sciences and not meaning us, we thought we should help them along by at least putting 'science' in the name of our department."

The idea of explaining the department's scientific nature to other disciplines did play a role in the decision, says Jeffrey Smith, the current chair. Another consideration, Smith recalls, was highlighting the department's scientific core to prospective students. At a late-summer faculty retreat, members of the Northern Kentucky psychology department discussed these lingering misperceptions, as well as how best to address them. The idea of a new name was unanimously embraced, says Goddard, and once she learned how easy it would be to submit the official request ("all it took was a memo"), the department had no reason not to.

"We talked about it and said let's actually change the name to 'psychological science' to more directly indicate what the field is really all about, and particularly our approach to it," says Smith. "The name change was one way of communicating that to students, to colleagues, and to the general community the nature of psychology — the scientific basis behind the discipline."

The Department of Psychological Sciences at the University of Missouri was born of similar reasons, about a decade earlier. Harris Cooper had just become chair of the department when he decided its name did not adequately describe its nature. "Everyone in the department used the scientific method to study psychological phenomenon," he says. "I was really looking at internally who we were and how I was hoping we would be perceived externally."

Cooper believes the change emphasized the type of "rigorous empirical investigation" that psychology shares with the natural sciences. The new name reflected such a universal belief among the Missouri faculty that Cooper does not recall a single voice of opposition. "It was a change that was easy to defend," he says, "so I don't remember ever having to do so."

## From Culture to Chemistry

Cooper is now the chair of psychology at Duke, which underwent a name change of its own about five years ago. The new Department of Psychology and Neuroscience is the product of a marriage that occurred between one psychology department that covered social and health sciences

and another that covered brain sciences. The departments were unified to facilitate collaboration across disciplines, and Duke now boasts five areas of psychological training: clinical, developmental, social, cognition and cognitive neuroscience, and systems and integrative neuroscience. "We refer to ourselves as studying behavior from culture to chemistry," Cooper says. "We truly do span everything from cultural approaches to understanding human thought, feelings, and behavior, to the chemistry of the same."

Each move indicates a belief that psychology deserves to stand among the harder sciences on the merit of its basic methodology, its integration with the brain sciences, or both.

The blurring of traditional disciplinary lines was a major reason why Brown University formed the Department of Cognitive, Linguistic and Psychological Sciences out of two distinct departments, in July 2010. The new department will study "mind, brain, behavior, and language" from its freshly renovated 36,000-square-foot home. "Having separate departments of cognitive science and psychology no longer made sense given the multidisciplinary nature of our field," says William Heindel, the current chair. "The two departments have typically taken complementary approaches to common scientific questions, and it became clear that cutting-edge research on these problems required spanning several levels of analysis and using a range of approaches and methodologies."

The lack of a merger did not prevent the psychology department at Indiana University from assuming a new name in 2003: Psychological and Brain Sciences. The change acknowledged that "the spectrum of psychology has broadened significantly" to include neural approaches and an integrated study of brain and cognition, says Olaf Sporns, Indiana's associate department chair. Linda Smith, the head chair, agrees that the swift expansion of certain subfields — neuroscience, cellular science, and robotics, among them — threatened to destabilize the department as it used to exist. The name change reflected the faculty's desire to capture these various advances in a single container. "We think behavior is the central lynchpin," says Smith, "but we thought it was important we not be isolated from where advances were happening."

Without question, the new department names at Duke and Brown and Indiana evolved differently from those

at Missouri and Northern Kentucky. The former efforts lacked an explicit agenda of shifting public perception that emboldened the latter, and they ask psychology to share space on their new billboards with brain sciences. At the same time, it seems fair to consider the moves part of the same family - cousins, if not siblings, with what happened at Dartmouth as a common relative - in the sense that they all emerged to project an enlightened image of the discipline. Each move indicates a belief that psychology deserves to stand among the harder sciences on the merit of its basic methodology, its integration with the brain sciences, or both. The field is not, after all, witnessing a counter-movement filled with Departments of Psychology and Spiritualistic Performances.

"I think it helped us to project what the department is more effectively to the outside world," says Sporns of Indiana's new name. "We're not the only ones who have done this, and I suspect we won't be the only ones doing this in the future."

## The 'Prestige' of Psychology

Confirmation of Sporns's suspicion may depend largely on the success of the name changes that have already occurred. Some early signs appear positive. David Geary of Missouri saw first hand the result of simply adding the word sciences to the psychology department's name. "There was some internal attempt to be included among other departments in the biological and natural sciences, in terms of how it's viewed by people on campus, administrators, so forth," Geary says of the decision to become the Department of Psychological Sciences. "When I was chair, which was a few years after the change was instituted, I did notice that when administrators gave talks, overviews of research of what the university was doing, we were increasingly presented with these other natural science departments."

Lambert Deckers, who has taught at Ball State's Psychological Science Department for 42 years, believes psychology's convergence with neuroscience, cognition, and brain studies will do even more to blur the lines of public perception. "I could see the integration with biological sciences as adding to the 'prestige' of psychology," he says. "Brain science and biological science all have material bases that people can point to, that they can smell and touch it, but with mental events you can do none of those things." (Ball State's change is a bit of an outlier;

my name is
my name is

Psychology Department

Cognitive, Linguistic, and

Psychological Science

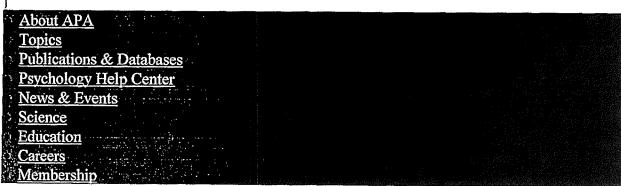
Psychological Science

it was made in the late 1960s to distinguish experimental psychology from two other departments, counseling and educational psychology, that exist at the Teacher's College.)

Richard Petty, department chair at Ohio State University, mentioned several of the new names during a recent talk on current trends in psychology given at a meeting of the Council of Graduate Departments of Psychology, but he is not sure names alone will be enough. "When I was an undergraduate, I was in a department of foreign affairs," he says. "Now they're all called political science. Is political science more identified with science? I don't know if that does it." Petty is more interested in the new majors that have accompanied the new department names. At many schools, including Indiana, Duke, and Dartmouth, the traditional psychology major has been joined by a concentration in neuroscience. Missouri will soon add a Bachelor of Science degree in psychology — to go with the existing Bachelor of Arts — that will require additional courses in statistics and an area like biology, in the hopes of attracting more premed students. Northern Kentucky added its own Bachelor of Science concentration a few years ago, and Jeffrey Smith says it is now more popular than the B.A. degree.

Popularity is one thing, says Petty, but a better indication of the success or failure or these changes will be whether they attract students who would have otherwise studied outside the psychology department. By that barometer, the changes at Dartmouth are already giving a reading. The school created its neuroscience major while Hughes was chair, around the same time he was hatching the plot that would become the Department of Psychological and Brain Sciences. Initially the department anticipated that about 10 students in each class would pursue the concentration in each class, says Hughes; instead that figure is closer to 40. Meanwhile, the number of traditional psychology majors has not slipped — leading Hughes to believe that many of these students, in former times, would have majored in biology.

"I don't know if I'm kidding myself, but I think the general perception has changed. I think it has," says Hughes. "I think it's interesting to see how many departments have been going this way. My guess is it's external validation of the fact it was a good idea, what we did." •



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FEATURE

## Truth in advertising

Undergraduate psychology programs aren't always coded as STEM. Here's why that matters and what psychologists are doing about it.

By Kirsten Weir 2015, Vol 46, No. 3



What's in a name? When it comes to labeling undergraduate psychology programs, plenty. At colleges and universities across the country, psychology departments are offering challenging programs to educate students in psychological science. Yet many of those programs are identified with outdated codes that lead them to be classified outside of the STEM fields (science, technology, engineering and mathematics).

"Psychology is a rigorous science, and colleges and universities have done a great job in recent years in teaching it as that," says Howard Kurtzman, PhD, APA's acting executive director for science. "By formally classifying psychology as STEM, that work is properly recognized and psychology will be included in national efforts to strengthen and expand STEM education."

Cynthia Legin-Bucell, PhD, the former chair of psychology at Edinboro University in Pennsylvania, has made it a mission to help academic psychology departments ensure their programs are classified correctly. "Psychology is the scientific study of behavior and mental processes, and it's important for us to be factually represented," she says. "Misclassifying undergraduate psychology programs can give a distorted view of what we actually offer." At issue is a coding system known as Classification of Instructional Programs (CIP), which the National Center for Education Statistics of the U.S. Department of Education uses to collect data on undergraduate degrees across disciplines. Most students who receive bachelor's degrees in psychology do so under the *General Psychology* code (42.0101). The description of that classification emphasizes the study of behavior and the analysis and treatment of behavior problems and disorders.

But that description doesn't describe what most psychology majors today are actually learning, says Legin-Bucell. Nor does it reflect the principles in the <u>APA Guidelines for the Undergraduate Psychology Major</u>, which were updated in 2013 to emphasize psychology's status as a science. The updated guidelines recommend students develop a broad knowledge base in psychology, as well as skills in scientific inquiry and critical thinking.

A more appropriate CIP code, Legin-Bucell argues, is *Research and Experimental Psychology* (42.2799), which covers sub-areas such as cognitive, comparative, experimental, physiological and quantitative psychology. While different agencies and organizations maintain their own lists of which CIP designations qualify as STEM, the Research and Experimental Psychology classification typically falls under the STEM umbrella. *General Psychology* usually does not.

At Edinboro, Legin-Bucell worked with administrators to change the CIP code to reflect the science-based nature of the university's psychology major. She presented on the topic at the annual meeting of the Association of Heads of Departments of Psychology (AHDP) in 2013 and has briefed leaders of APA's Education and Science Directorates on the importance of CIP codes for psychological science. She has also submitted a proposal for a panel to discuss the issue at APA's 2015 Annual Convention in Toronto, Aug. 6–9.

It's an uphill battle. Many department heads have never even heard of the coding system. "CIP codes were not on my radar," says Lee Gillis, PhD, head of the department of psychological science at Georgia College. Yet after learning of the issue at the 2013 AHDP meeting, he launched a successful effort to reclassify the psychology program at Georgia College. Like many undergraduate psychology programs, he says, his program has evolved to become increasingly grounded in science. The college's psychology major now requires courses such as statistics and research methods, he says, and the department recently changed its name from the department of psychology to the department of psychological science. The updated CIP code simply confirms what the program was already doing. "The central piece for me is accurately describing what we're offering to undergraduates with a psychology major," Gillis says. Susan Putnam, PhD, chair of the psychology program at Canisius College in Buffalo, New York, also petitioned successfully to change the department's *General Psychology* code. Like Gillis, she says it's clear that the *Research and Experimental Psychology* label is a better fit for the things her students are learning.

"Psychology is a much different discipline than it was 50 years ago," Putnam says. "We require courses in research methodology and statistics, and we focus on scientific discipline and inquiry." At her institution, in fact, STEM programs such as biology and physics often send their

students to the psychology department to learn research methods and statistics, she adds. "Yet we didn't have the STEM code."

## Worth the effort

Unfortunately, there's no clear-cut process for changing CIP codes. "It depends on the institution," says Legin-Bucell.

To start, she recommends talking to the school's institutional research officer. From there, the dean and/or provost will probably need to approve the proposal. In public institutions, someone from the system level must also give the OK, she says — typically the system's institutional research officer and the vice chancellor for academic affairs.

When Putnam started this process, she first spoke with two of the psychology department's former chairs. Neither was familiar with CIP codes or knew how to go about changing them. After asking a lot of questions and talking to many people, she says, she learned her institution has no formal process for changing CIP codes. She sent her proposal to the school's institutional research office and to the registrar, and was thrilled when she received word that the change had been approved. "I was swimming in completely unknown waters," she says, "but I was determined to get this through."

Proponents believe it's worth the effort. CIP codes provide the basis for most local, state and national reports relating to college majors and degree outcomes, Legin-Bucell says.

When a program is classified under the *General Psychology* designation, psychology students and faculty can miss out on grants that are available only to STEM disciplines. And given recent public interest in STEM education, an official STEM degree may make psychology grads even more marketable.

"We want our students to be recognized as being competent in the areas that they are competent in," Putnam says. "And I think it will ultimately elevate the discipline of psychology." Despite the scientific sophistication of modern psychology programs, "there is still a view from some disciplines that psychology isn't a real science," says Legin-Bucell. "This is another means for us to affirm our status as a science. It really is truth in advertising."

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## Letters to the Editor

## Presidential Column Psychology is a Hub Science

By John Cacioppo

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In an issue of the magazine Scientific American, the editors observed that "whenever we run articles on social topics, some readers protest that we should stick to 'real' science" (The Peculiar Institution, 2002, p. 8). You and I are confident about the scientific stature of psychology, but who in APS hasn't felt the icy skepticism of a fellow traveler on a flight after you respond to the question, "What is your occupation?" You may therefore be pleasantly surprised by a scientometric study entitled "Mapping the Backbone of Science" (Boyack, Klavans, & Borner, 2005). The article is must reading for deans who oversee scientific psychology departments. I will explain why shortly. But first, some background.

In the Middle Ages, theology and philosophy were a dynamic duo of hub disciplines around which the other sciences were organized. These two areas influenced thinking across the various fields of scholarship (Leydesdorff, 2006).

The past three centuries have seen unparalleled advances in science. During this time, there have been scientific theories of invisible forces operating with measurable effects, such as in the case of magnetism, gravity, and dark matter. Natural philosophy became identified with physics, which, with mathematics, took on the role of the hub discipline of science.

Scientific research during the past century has continued to accelerate in terms of quantity and impact. People may reminisce about the good old days, but thanks to science and technology the amount of total income spent on the necessities of food, clothing, and shelter dropped from 80 percent in 1901 to 50 percent in 2002/2003 (U.S. Department of Labor, 2006). The explosion in the number of scientists, scientific specializations, journals, and research articles over the past century has been just as extraordinary. Given these dramatic changes, are the sciences still organized around a central discipline or two? Has the rapid period of expansion produced several hub disciplines? Or have all the scientific disciplines matured independently and sufficiently such that there is no central, inherent overall structure in the sciences?

Boyack and colleagues sought to answer these and similar questions. Scientometric and bibliometric analyses have been in place to identify clusters of authors, papers, or references, but only recently have computing capabilities, computational algorithms, and visualization techniques emerged that permit the analysis of large-scale document datasets. Boyack and colleagues quantified the patterns of scientific influence within and across the sciences based on citation data from more than one million journal articles appearing in 7,121 natural and social sciences journals published in 2000. For a source of high-quality citation data, they turned to the Science Citation Index (SCI) and the Social Science Citation Index (SCI). The use of the SCI and SSCI also made it possible to use individual journal articles, rather than entire journals, as the unit of analysis. Among the limitations of using the SCI and SSCI are that conference and workshop proceedings are not indexed and that non-Énglish-language journals are less likely to be

Eight different approaches to quantifying citation patterns were used to ensure structural accuracy, where accuracy means that journals within the same subdiscipline were grouped together, and groups of journals that cite each other were close to each other. Additionally, new visualization techniques were used to generate a two-dimensional spatial map of the sciences based on each metric. Finally, the validity of these maps was compared using two different accuracy measures. The best measures converged on the landscape of scientific influence. The resulting mapping of science provides a visual depiction of where each scientific discipline is, what is around it, what its relationships are to its neighboring disciplines, and how strong its impact is on the neighboring disciplines.

The results are presented in Figure 1. Not surprisingly, given scientific specialization over the past century, contemporary sciences no longer originate from a single source. Instead, seven hub sciences can be identified: mathematics, physics, chemistry, earth sciences, medicine, psychology, and the social sciences. Yes, psychology

emerged as one of the hub disciplines of science!

The location of many of the disciplines has face validity as well. Electrical and nuclear engineering fall between mathematics and Physics FUAS

measure based on co-citations. Large font size labels psychology.

physics, chemical engineering and analytic chemistry fall between physics and chemistry, and statistics falls between mathematics and the social sciences. More interestingly here, public health, neuroscience, neurology, radiology, cardiology, and genetics are among the sciences that fall between psychology and medicine, whereas education and gerontology fall between psychology and the social sciences.

The more insular the field, the closer a field will lie to the outside of the map. Those with many interdisciplinary linkages are more likely to lie toward the middle of the map. It is interesting, therefore, to note that psychiatry, law, political science, and economics all lie along the outside, whereas psychology is closer to the middle, reflecting its interdisciplinary nature. Another map depicting the linkages among scientific fields confirmed that psychology is a hub discipline — that is, a discipline in which scientific research is cited by scientists in many other fields. For instance, medicine draws from psychology most heavily through neurology and psychiatry,

Figure 1. Map of science generated using a similarity whereas the social sciences draw directly from most of the specialties within

the disciplinary topics of nearby cluster sof journals. From Boyack et al. (2005).

identify major areas of science. Small labels denote During a period in which our national leaders appear more likely to identify psychology with the work of Dr. Phil and Dr. Laura than with the thousands of scientists worldwide who make up the membership of the Association for Psychological Science, it is imperative that institutions of higher education

make clear the centrality and influence of psychological science as well as the importance of maintaining and promoting its growth. Indeed, Boyack et al. (2005) noted: "Our interest in mapping science stems from a desire to understand the inputs, associations, flows, and outputs of the Science and Technology enterprise in a detailed manner that will help us guide that enterprise (or at least that portion of it operating in our institutions) in more fruitful directions" (p. 352). Most universities are organized along more traditional disciplinary boundaries, but decisions about both faculties and facilities could benefit from knowledge about the scientific disciplines that are especially central and influential. The results of Boyack et al. (2005) indicate that scientific contributions in psychology advance not only the discipline but many other scientific fields as well.

I began this column with the observation by the editors of Scientific American that whenever they run articles on "social" science topics they receive protests from some readers who advise them to stick to real science. The editors of Scientific American went on to say that they seldom hear these complaints from working physical or biological scientists: "They are the first to point out that the natural universe, for all its complexity, is easier to understand than the human being. If social science seems mushy, it is largely because the subject matter is so difficult, not because humans are somehow unworthy of scientific inquiry" (The Peculiar Institution, 2002, p. 8). The importance and centrality of psychological science may not be fully understood by politicians, but the evidence is clear: The mapping of science shows psychology to be a hub discipline with a great deal to offer (and learn from) other scientific disciplines.

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1 The study was kindly sent to the author by Eliot Smith.

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SCIENCE DIRECTIONS

## Calling psychology education what it is:

By Dr. Steven J. Breckler, APA Executive Director for Science July/August 2014, Vol 45, No. 7 Print version; page 74



One of APA's principal strategic goals is to increase recognition of psychology as a science. We are working to enhance psychology's prominence as a core STEM (Science, Technology, Engineering and Mathematics) discipline, and to expand educational resources and opportunities in psychological science. The teaching of psychology — especially at the undergraduate level — is an important focus of our efforts. The Board of Educational Affairs developed the APA Principles for Quality Undergraduate Education in Psychology, which were adopted as APA policy in 2011. And in 2013, the Board of Educational Affairs updated the APA Guidelines for the Undergraduate Psychology Major, which emphasize the promotion of psychology as a science.

Students who complete an undergraduate degree in psychology should be recognized as having earned a degree in science. The National Center for Education Statistics (NCES) collects annual data on degrees conferred across many fields of study. In 2010/2011, over 100,000 students earned bachelor's degrees in psychology. This is among the largest concentrations across all degree fields — higher than biology, physics, engineering or mathematics. If psychology is considered a STEM field, it produces the single largest number of undergraduate degrees among all STEM disciplines.

NCES uses an elaborate coding system in its Classification of Instructional Programs (CIP). Many of the CIP codes represent areas of study related to psychology or behavioral science. In addition to General Psychology (CIP code 42.0101), there is Research and Experimental Psychology (42.2799), Clinical, Counseling and Applied Psychology (42.2899). Behavioral Science (30,1701) and Cognitive Science (30,2501). Dozens of other CIP codes represent the more specialized subfields of psychology, which apply better to graduate than undergraduate areas of study.

The overwhelming majority of students classified as having earned a bachelor's degree in psychology fall into CIP code 42.0101 (general psychology). On the surface of it, this might appear to be the proper classification. Yet, consider the NCES definition of this classification:

A general program that focuses on the scientific study of individual and collective behavior, the physical and environmental bases of behavior, and the analysis and treatment of behavior problems and disorders. Includes instruction in the principles of the various subfields of psychology, research methods, and psychological assessment and testing

Some of this definition clearly reflects the scientific basis of psychology. But how often does an undergraduate course of study focus on the analysis and treatment of behavior problems and disorders? In comparison, the NCES definition of Research and Experimental Psychology subsumes all of the following sub-areas of the field:

- Cognitive
- « Comparative
- Developmental
- Experimental
- Personality
- Physiological/biological
- Quantitative

These are the sub-areas that define the STEM discipline of psychology and that provide the main substance of education in psychology at the undergraduate level. The typical psychology major concentrates on instruction in these areas and should be properly classified under CIP code 42.2799.

Why does this matter? Because most of higher education and the federal government do not recognize a degree coded as 42,0101 as reflecting a STEM field, in contrast, 42,2799 is recognized as belonging in the list of STEM disciplines.

Psychology faculty around the country have been advocating within their own colleges and universities for a re-classification of the psychology degree — from 42,0101 to 42,2799. Many have succeeded.

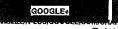
When we teach psychology, we are teaching STEM. We should call it what it is, and each of us should take responsibility for getting this to be represented correctly in the important classification systems.

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