Faculty Perceptions of Disciplinary Cultures and Their Relationship to Teaching: Validating Becher's Convergent-Divergent Dimension

Stephen C. Hiller[1], Emily Braught, Thomas Nelson Laird | *Indiana University Bloomington*

Abstract

Becher's (1989) seminal work on academic disciplines proposed the Convergent-Divergent dimension to capture one social dynamic that distinguished disciplinary cultures, and yet little work has explored how the Convergent-Divergent dimension relates to faculty teaching practices. This study operationalizes this dimension in items appended to the Faculty Survey of Student Engagement (FSSE). With nearly 700 responses from faculty in 98 disciplines, this study examines the relationship of a Cultural Convergence construct with faculty teaching practices and whether faculty taught similarly to their disciplinary peers. Findings indicate that cultural convergence does not influence teaching practices in four of five areas, though the more convergent a discipline, the more faculty tend to teach similarly to their peers in three of five areas of teaching.

Study Purpose

As attention toward improving faculty teaching and student learning in higher education increased in recent decades, the call for researchers and faculty to better understand the complexity of teaching within academic disciplinary contexts increased too (Hutchings et al., 2011; Lattuca & Stark, 1995). Many efforts to better understand disciplinary contexts have relied on Biglan's (1973a, b) three dimensions – Hard-Soft, Pure-Applied, and Life-Nonlife. While these dimensions are valuable, they capture only certain aspects of the disciplinary contexts in which faculty work. Becher's (1989) seminal work on academic disciplines proposed two dimensions – Convergent-Divergent and Urban-Rural – to complement Biglan's, and yet, little scholarship has sought to apply and validate these dimensions for understanding disciplinary variation in faculty teaching practices.

This study focuses specifically on Becher's Convergent-Divergent dimension which considers the degree to which a discipline has uniform or standard practices in faculty work and a stable elite that directly or indirectly exercises intellectual control of the discipline and its practices (Becher, 1989). Becher derived the Convergent-Divergent dimension from a synthesis of relevant literature and over 200 faculty interviews across 12 disciplines and multiple institutions in the U.S. and U.K. However, with little subsequent scholarship, it is unclear whether this dimension functions across a wider array of disciplines as a means of differentiating amongst disciplines and whether it functions to describe variation in teaching practices across disciplines.

Given the inherently sociocultural nature of academic disciplines, seeking to better understand the extent that such social dynamics exist within disciplines can provide researchers and faculty with a clearer picture of how disciplinary cultures influence the ways that faculty teach. To this end, the following questions guide this study:

- RQ1) How do faculty perceive their academic disciplines as convergent or divergent in nature?
- RQ2) How do faculty teaching practices vary by the faculty perceptions of their disciplines' convergence or divergence?
- RQ3) How do faculty perceptions of their disciplines' convergence/divergence relate to the degree faculty teach similarly/differently from their peers in their discipline?

---

[1] Questions and feedback can be directed to Stephen Hiller, schiller@indiana.edu.

Framework and Literature

The cultures of academic disciplines have long been understood to be influential to faculty life, perhaps even more so than institutional influences (Becher & Trowler, 2001; Clark, 1997). As faculty and students are socialized into their chosen fields, they learn what is acceptable and expected in terms of teaching and learning (Becher & Trowler, 2001). Disciplinary cultures have been found to shape not only content, but also the methods of teaching (Umbach, 2007). Additionally, Trowler and Wareham (2008) argued that the influences of disciplines on teaching and research can vary in cause, scope, and strength. Viewed in this way, disciplinary influences can range from strong, pervasive, structural influences to weaker, individualistic influences that are restricted in scope. Scholars seeking to empirically examine the qualities and cultural aspects of disciplines and their relationships with faculty work have predominantly relied on frameworks such as Biglan's (1973a, b) three dimensions (e.g., Lindblom-Ylänne et al., 2006; Nelson Laird et al., 2008; Smart & Ethington, 1995) or an application of Holland's theory of career choice to academic environments (e.g., Pike et al., 2012; Smart et al., 2000; Umbach, 2006). Becher (1989; see also Becher & Trowler, 2001) further elaborated on Biglan's Hard-Soft and Pure-Applied dimensions with two dimensions, Convergent-Divergent and Urban-Rural, that spoke more to the social dynamics that distinguished different disciplinary cultures.

Convergent disciplinary communities manifest a collective and shared identity across individual faculty and subspecialties whereas divergent disciplinary cultures are described as ideologically fragmented (Becher, 1989; Becher & Trowler, 2001). Convergent disciplinary communities have more mutual scholarly interests and concerns, share common intellectual values, and have coherence across subspecialties and individual faculty. Convergent disciplinary cultures also tend to have an intellectual elite who, directly or indirectly, maintain some degree of control over the disciplinary culture. According to Becher's initial study, Physics and history would be classified as convergent while Engineering and Sociology would be considered more divergent, with Law, Chemistry, and Biology in the middle of the spectrum. Notably, little scholarly work has further examined the continued relevance of the dimension or the relationships between Becher's Convergent-Divergent dimension and faculty work.

Importantly, scholars have critiqued such frameworks for being overly reductive. For instance, Trowler (2014) argued that while disciplinary frameworks function well from an overhead view, their distinctions often become blurrier when viewed close up. Focusing particularly on Biglan's (1973a, b) and Becher's dimensions, it is then important to highlight that scholarship has too often reduced continuous dimensions into dichotomies. Even Biglan's own work suggested a continuum of disciplines across the dimensions (1973a) while then identifying disciplines dichotomously as either Hard or Soft, for example, when applying the dimensions to examine faculty work (1973b). Becher's (1989) work similarly describes his dimensions as more continuous in nature, though empirical scholarship has not yet applied the dimension, dichotomously or continuously, as a potential influence on faculty work.

Methods

Data Source and Sample

We use data from the 2022 administration of the FSSE survey, a large-scale multi-institutional instrument that asks faculty about their use of educationally effective practices both inside and outside of course contexts. FSSE staff appended a set of items regarding faculty members' perceptions of the norms and practices of their disciplines to the core instrument for faculty at 16 random eligible participating institutions. The final data set included 691 faculty who responded to at least one of the items in the additional item set. Faculty represented 98 unique disciplines, with the highest proportion of faculty respondents in Arts & Humanities disciplines (19.4%). Most faculty identified as Women (50.9%), White (74.3%) and Straight (83.1%). Table 1 includes sample characteristics.

Measures

In focus in this analysis are four items informed by literature on convergent and divergent disciplinary cultures (Becher, 1989). The items focus on faculty perceptions of key aspects of convergent and divergent disciplinary cultures and can be interpreted as measuring a discipline's degree of convergence or divergence. Item response options ranged from 0 (Does not at all describe my discipline) to 10 (Perfectly describes my discipline), with "0" corresponding to strong divergence and 10 designed to correspond to strong convergence. See Table 2. To explore faculty teaching practices, we use five scales from the core FSSE Survey: Higher Order Learning, Reflective and Integrative Learning, Quantitative Reasoning, Collaborative Learning, and Discussions with Diverse Others (Table 3). These core FSSE scales have been extensively validated as reliable indicators of faculty teaching practices (FSSE, n.d.).

Analysis

To answer our question about faculty perceptions of their disciplines as convergent or divergent, we examined descriptives and an exploratory factor analysis (EFA) of our variables of interest. To answer our question about how faculty teaching practices vary by the perceived disciplinary convergence/divergence of their discipline, we examined a series of regression models with faculty teaching practices as the outcomes and perceived convergence/divergence, both at the individual faculty level and the discipline group-mean, as the independent variables of interest. To answer our final question about how faculty perceptions of their discipline's convergence/divergence relate to similarity in teaching practices within disciplines, we examined a series of regression models with the absolute value of the difference between faculty members' individual teaching practice scale scores and their discipline's mean scale scores as the outcomes and the perceived convergence/divergence, both at the individual faculty level and the discipline group-mean, as the independent variables of interest. Regression models included control variables for faculty members' identities, professional characteristics, and course characteristics. For all regression models, the outcomes variables and the independent variables of interest were entered as standardized Z-scores so that model coefficients function as effect sizes.

Results

An EFA indicated that the items intended to measure faculty perception of the level of convergence or divergence of their discipline indeed formed a scale, henceforth named the Cultural Convergence scale. See Table 2 for scale descriptives. The Cultural Convergence scale had an acceptable Cronbach's alpha (.77), which suggests that the items are correlated and that the scale is a fairly narrow construct. Faculty, on average, tended to perceive their disciplines as slightly more convergent than divergent (mean=6.53, sd=1.76). The distribution of faculty perceptions suggests that the vast majority of faculty in the majority of disciplines see their disciplines as not strongly convergent nor strongly divergent in nature. Averaging faculty perceptions at the disciplinary level, considerable variation was observed. For instance, though Engineering disciplines generally were perceived as the most convergent (mean=8.33), several specific Business disciplines were perceived as strongly convergent (e.g., Hospitality and Tourism, mean=9.00; Supply chain and operations management, mean=8.63). See Table 4 for scale means for disciplines of all faculty respondents, with further results to be described in the full paper.

Regarding the relationships between teaching practices and Cultural Convergence, notable results from the second and third research questions are presented here. Tables 5 and 6 present full model results. Examining RQ2, discipline-level mean Cultural Convergence did not have statistically significant relationships with any of the five teaching practice scales. However, the individual faculty perception of disciplinary Cultural Convergence did relate to the importance of quantitative reasoning in coursework ($B=.10$, $p<.05$), though the effect size is small. Examining RQ3, the discipline-level mean Cultural Convergence was significantly and negatively related to the degree faculty taught differently from their disciplinary peers with regard to higher-order learning ($B=-.121$, $p<.05$) and quantitative reasoning ($B=-.131$, $p<.01$). Additionally, the individual faculty perception of their discipline's

Cultural Convergence was significantly and negatively related to the degree faculty taught differently from their disciplinary peers on reflective and integrative learning ($B=-.136$, $p<.01$).

Significance

In seeking to expand on understandings of the complexity of teaching within academic disciplinary contexts, this study operationalized Becher's Convergent-Divergent dimension and examined how it relates to faculty teaching practices in five areas. Measuring faculty members' perceptions of their disciplines' degree of convergence or divergence, a narrow construct, named Cultural Convergence, was identified.

Results showed considerable variation in faculty perceptions of disciplinary Cultural Convergence and indicated that while faculty tended to view their disciplines as slightly more convergent, the vast majority of faculty do not view their disciplines as strongly convergent or strongly divergent. These results echo critiques of disciplinary frameworks as reductive of the variation within disciplinary cultures. Generally, there are not stark contrasts between disciplines on Cultural Convergence in this study, reinforcing the value of scholarship using more continuous, rather than dichotomous, measures of disciplinary qualities when examining disciplinary influences on faculty work.

Interestingly, when examining how Cultural Convergence relates to teaching practices, only limited relationships were observed. In general, Cultural Convergence did not appear to much affect how faculty teach. This is somewhat surprising given how Becher (1989) relates disciplinary convergence to Biglan's (1973a, b) dimensions and how prior research has identified clear differences in teaching practices across Biglan's dimensions (e.g., Nelson Laird et al., 2008). Further study of teaching practices, Cultural Convergence, and the Biglan dimensions would prove valuable to better understand the dynamics behind these results.

Notably, Cultural Convergence did relate in limited ways to whether faculty taught similarly to their disciplinary peers. For higher-order learning and quantitative reasoning, regardless of how individual faculty perceived the Cultural Convergence of their disciplines, faculty tended to teach more like their peers as the group perception of convergence increased. Interestingly, for reflective and integrative learning, the perceived disciplinary environment (the individual faculty perception of Cultural Convergence) rather than the collective disciplinary cultural environment (as expressed by discipline mean Cultural Convergence) related to faculty teaching more like their peers if they perceived their discipline to be more convergent. These results further strengthen the validity of the Cultural Convergence construct and its utility in understanding faculty teaching. While these results are particularly valuable to scholars examining disciplinary influences on faculty work, they may also prove valuable to faculty developers and administrators to better understand, improve, and influence faculty teaching. Understanding disciplinary variation related to cultural convergence can help faculty developers and administrators better strategize policies, practices, and efforts for change as well as develop supports that are more tailored to the needs and collective mindset in different fields.

References

Becher, T. (1989). *Academic tribes and territories: Intellectual enquiry and the culture of disciplines* (1st ed.). The Society for Research into Higher Education and Open University Press.

Becher, T. & Trowler, P. R. (2001). *Academic tribes and territories: Intellectual enquiry and the culture of disciplines* (2nd ed.). The Society for Research into Higher Education and Open University Press.

Biglan, A. (1973a). The characteristics of subject matter in different scientific areas. *Journal of Applied Psychology, 57*, 195-203.

Biglan, A. (1973b). Relationships between subject matter characteristics and the structure and output of university departments. *Journal of Applied Psychology, 57*, 1204-1213.

Clark, B.R. (1987). *The academic life: Small worlds, different worlds*. The Carnegie Foundation for the Advancement of Teaching.

Faculty Survey of Student Engagement. (n.d.). *FSSE Psychometric Portfolio*. Retrieved from fsse.indiana.edu.

Hutchings, P., Huber, M. T., Ciccone, A. (2011). *The scholarship of teaching and learning reconsidered*. Jossey-Bass.

Lattuca, L.R. & Stark, J.S. (1995). Modifying the major: Discretionary thoughts from ten disciplines. The *Review of Higher Education, 18*(3), 315-344.

Lindblom-Ylänne, S., Trigwell, K., Nevgi, A., & Ashwin, P. (2006). How approaches to teaching are affected by discipline and teaching context. *Studies in Higher Education, 31*(3), 285-298. DOI: 10.1080/03075070600680539.

Nelson Laird, T. F., Shoup, R., Kuh, G. D., & Schwarz, M. J. (2008). The effects of discipline on deep approaches to student learning and college outcomes. *Research in Higher Education, 49*, 469-494.

Pike, G. R., Smart, J. C., & Ethington, C. A. (2012). The mediating effects of student engagement on the relationships between academic disciplines and learning outcomes: An extension of Holland's theory. *Research in Higher Education, 53*, 550-575.

Smart, J.C. & Ethington, C. A. (1995). Disciplinary and institutional differences in undergraduate education goals. *New Directions for Teaching and Learning, 64*, 49-57.

Smart, J.C., Feldman, K.A., & Ethington, C.A. (2000). *Academic disciplines: Holland's theory and the study of college students and faculty*. Vanderbilt University Press.

Trowler, P. (2014). *Academic Tribes and Territories:* The theoretical trajectory. *Österreichische Zeitschrift für Geschichtswissenschaften, 25*(3), 17-26. https://doi.org/10.25365/oezg-2014-25-3-2.

Trowler, P & Wareham, T. (2008). *Tribes, territories, research and teaching: Enhancing the teaching-research nexus.* The Higher Education Academy.

Umbach, P.D. (2006). The contribution of faculty of color to undergraduate education. *Research in Higher Education 47*(3), 317–345.

Umbach, P. D. (2007). Faculty cultures and college teaching. In R.P. Perry and J.C. Smart (Eds.), *The scholarship of teaching and learning in higher education: An evidence-based perspective*, 263–317.

Tables & Figures

Table 1
Percentages of Faculty by Select Characteristics and Demographics

Faculty Characteristics and Demographics	%
Disciplinary Area	
Arts & Humanities	19.4
Biological Sciences, Agriculture, & Natural Resources	6.2
Business	10.8
Communications, Media, & Public Relations	4.9
Education	8.8
Engineering	1.0
Health Professions	13.2
Physical sciences, Mathematics, & Computer Science	13.0
Social Sciences	13.2
Academic Rank	
Full Professor	25.0
Associate Professor	27.1
Assistant Professor	26.5
Full-time Lecturer/Instructor	10.7
Part-time Lecturer/Instructor	10.7
Gender Identity	
Man	42.8
Woman	50.9
Another gender identity	1.1
I prefer not to respond	5.3
Race and Ethnicity	
Asian	4.7
Black or African American	7.3
Hispanic or Latino	2.3
White	74.3
Another race or ethnicity	1.9
Multiracial	3.4
I prefer not to respond	6.2
Sexual Orientation	
Straight (heterosexual)	83.1
LGBQ+	6.1
I prefer not to respond	10.9
Administrative Position	
Yes	76.0
No	24.0

Table 2
Cultural Convergence Scale Items and Descriptives

Cultural Convergence Scale and Component Items	Scale Descriptives
On a scale of 0 to 10, how well do the following statements describe your primary discipline or field (with 0 not describing your discipline at all and 10 perfectly describing your discipline)?	
a. My field/discipline has uniform expectations and procedures for scholarship. b. My field/discipline has uniform expectations and procedures for teaching. c. There are recognized leaders or prominent scholars in my field/discipline. d. The knowledge and questions people in my field/discipline focus on are often highly influenced by what prominent scholars have done.	N: 662 Range: 0-10 Mean: 6.5 St. Dev.: 1.76 Cronbach's α: .77 Discipline-level ICC: 0.07

Table 3
FSSE Scale Items and Descriptives

Scale and Items	Scale Descriptives
Higher-Order Learning In your selected course section, how much does the coursework emphasize the following? *Response options: Very much, Quite a bit, Some, Very little*	
a. Applying facts, theories, or methods to practical problems or new situations b. Analyzing an idea, experience, or line of reasoning in depth by examining its parts c. Evaluating a point of view, decision, or information source d. Forming a new idea or understanding from various pieces of information	N: 599 Range: 0-60 Mean: 42.0 St. Dev.: 1.76
Reflective and Integrative Learning In your selected course section, how important is it to you that the typical student do the following? *Response options: Very important, Important, Somewhat important, Not important*	
a. Combine ideas from different courses when completing assignments c. Include diverse perspectives (political, religious, racial/ethnic, gender, etc.) in course discussions or assignments d. Examine the strengths and weaknesses of their own views on a topic or issue e. Try to better understand someone else's views by imagining how an issue looks from their perspective f. Learn something that changes the way they understand an issue or concept g. Connect ideas from your course to their prior experiences and knowledge	N: 602 Range: 0-60 Mean: 44.5 St. Dev.: 13.99
Quantitative Reasoning In your selected course section, how important is it to you that the typical student do the following: *Response options: Very important, Important, Somewhat important, Not important*	
a. Reach conclusions based on their own analysis of numerical information (numbers, graphs, statistics, etc.) b. Use numerical information to examine a real-world problem or issue (unemployment, climate change, public health, etc.) c. Evaluate what others have concluded from numerical information	N: 601 Range: 0-60 Mean: 33.3 St. Dev.: 18.63
Collaborative Learning In your selected course section, how much do you encourage students to do the following: *Response options: Very much, Quite a bit, Some, Very little*	
a. Ask other students for help understanding course material b. Explain course material to other students c. Prepare for exams by discussing or working through course material with other students d. Work with other students on course projects or assignments	N: 599 Range: 0-60 Mean: 32.9 St. Dev.: 16.46

Discussions with Diverse Others
In your selected course section, how much opportunity do students have to engage in discussions with people from the following groups:
Response options: Very much, Quite a bit, Some, Very little

a. People of a race or ethnicity other than their own	N: 596
b. People from an economic background other than their own	Range: 0-60
c. People with religious beliefs other than their own	Mean: 28.1
d. People with political views other than their own	St. Dev.: 18.17

Table 4

Faculty Perceptions of Cultural Convergence

General Disciplinary Areas	Discipline Mean Scale Scores	General Disciplinary Areas	Discipline Mean Scale Scores
Arts & Humanities	6.12	Health Professions	6.58
Biological Sciences, Agriculture, & Natural Resources	6.67	Physical Sciences, Mathematics, & Computer Science	6.66
Business	6.85	Social Sciences	6.45
Communications, Media, & Public Relations	6.64	Social Service Professions	6.84
Education	6.97	Other disciplines	5.92
Engineering	8.33		
All Disciplines	**Discipline Mean Scale Scores**	**All Disciplines**	**Discipline Mean Scale Scores**
Arts, fine and applied	5.56	International business	6.5
Art history	6.5	Management	7.06
English (language and literature)	6.16	Management information systems	6.8
French (language and literature)	5.83	Marketing	7.08
Spanish (language and literature)	5.83	Organizational leadership or behavior	7.25
Other language and literature	6.6	Supply chain and operations management	8.63
History	6.75	Other business	6.38
Humanities (general)	4.85	Communications (general)	7.66
Music	6.54	Broadcast communications	5.08
Philosophy	5.64	Journalism	4.38
Religion	6.71	Mass communications and media studies	6.7
Theater or drama	6.13	Public relations and advertising	5.95
Other fine and performing arts	5.5	Speech	8.38
Other humanities	5.83	Other communications	5.5
Biology (general)	6.17	Education (general)	6.66
Agriculture	4.5	Early childhood education	6.38
Biochemistry or biophysics	6.5	Elementary, middle school education	7.5
Biomedical science	7.0	Mathematics education	5.25
Botany	6.5	Physical education	7.5
Cell and molecular biology	6.83	Secondary education	7.72
Environmental science/studies	8.0	Special education	6.94
Marine science	7.5	Other education	6.72

Microbiology or bacteriology	8.25	Chemical engineering	8
Natural science	7.38	Civil engineering	8.75
Physiology and developmental biology	7	Electrical or electronic engineering	8.25
Other agriculture and natural resources	6.5	Dentistry	3.75
Other biological sciences	9.5	Health science	6.92
Physical sciences (general)	6	Health technology (medical, dental, laboratory)	7.5
Chemistry	6.75	Healthcare administration and policy	5.88
Computer science	6.65	Kinesiology	5.63
Earth science (including geology)	6.75	Nursing	7.12
Mathematics	6.31	Nutrition and dietetics	7.75
Physics	7.38	Occupational therapy	4.75
Statistics	8	Physical therapy	2
Other physical sciences	7.75	Rehabilitation sciences	8.25
Social sciences (general)	6.42	Speech therapy	6.5
Anthropology	5.88	Other health professions	6.25
Economics	6.06	Criminal justice	6.96
Ethnic studies	5	Public administration, policy	7.75
Geography	7	Social work	6.64
Political science	6.05	Computer information systems	6.88
Psychology	7.03	Family and consumer studies	7
Sociology	5.32	General studies	4.19
Other social sciences	6.06	Information technology	7.5
Accounting	5.75	Liberal arts and sciences	6.6
Business administration	8.04	Multi, Interdisciplinary studies	4.38
Entrepreneurial studies	4.25	Professional studies (general)	7
Finance	6.29	Theological studies, ministry	7.32
Hospitality and tourism	9	Other, not listed	5.37

Table 5

Relationships between Cultural Convergence and Faculty Teaching Practices

	Higher Order Learning			Reflective and Integrative Learning			Quantitative Reasoning			Collaborative Learning			Discussions with Diverse Others		
	B	S.E.	Sig.	B	S.E.	Sig.	B	S.E.	Sig.	B	S.E.	Sig.	B	S.E.	Sig.
Discipline Mean Cultural Convergence	.00	.05		-.02	.05		.06	.05		.08	.05		-.02	.05	
Individual Faculty Cultural Convergence	.00	.05		.08	.05		.10	.05	*	.01	.05		-.01	.05	
Course Details															
Lower Division	-.24	.08	***	-.24	.07	***	.01	.08		-.04	.07		-.11	.07	
Upper Division	.21	.07	***	.16	.07	***	.14	.07	*	-.03	.07		.11	.07	
Small Course	.01	.06		.05	.06		-.11	.06		-.01	.06		-.15	.06	**
Medium Course	.07	.06		.03	.06		-.06	.06		-.07	.06		.13	.06	*
Not a GenEd	-.12	.04	**	-.19	.04	***	.03	.04		-.05	.04		-.08	.04	
Course Format															
In-person course	-.16	.06	**	-.11	.06		-.02	.06		.23	.06	***	-.16	.06	**
Online course	.03	.08		-.06	.08		-.03	.08		-.42	.07	***	.14	.07	
Faculty Characteristics															
# of Undergraduate and Graduate Courses Taught	.00	.02		.01	.02		-.01	.02		-.01	.02		-.04	.02	*
# of Years Teaching	-.01	.00	*	.00	.00		-.01	.00	*	.00	.00		.00	.00	
Part Time	-.09	.07		.07	.07		-.04	.07		.01	.07		.04	.07	
Academic Rank															
Professor	-.02	.09		-.07	.09		-.01	.09		.07	.09		-.04	.09	
Associate Professor	.15	.09		.11	.08		-.12	.09		.07	.08		-.11	.08	
Assistant Professor	.21	.09	*	.06	.09		.00	.09		-.04	.09		.05	.09	
Instructor or Lecturer	-.14	.09		-.05	.09		.09	.09		-.15	.09		-.09	.09	
Gender Identity															
Man	.01	.10		-.26	.10	**	-.01	.10		-.11	.10		-.02	.10	
Woman	.12	.10		.11	.10		-.06	.10		-.08	.10		.26	.10	**
Racial/Ethnic Identity															

Asian	-.04	.18		-.36	.18	*	-.05	.18		.33	.17		.07	.18	
Black or African American	-.12	.16		.16	.16		.28	.16		-.02	.16		-.02	.16	
Hispanic or Latino/a	-.02	.24		.30	.23		-.16	.24	*	.09	.23		.04	.23	
White	.04	.09		-.03	.09		-.21	.09	*	.00	.09		-.07	.09	
Another race or identity	.19	.25		.30	.24		.23	.25		.15	.24		-.14	.24	
Multiracial	.13	.21		.06	.20		.07	.21		-.07	.20		-.14	.20	
Sexual Orientation															
Straight (heterosexual)	.01	.09		.00	.09		.04	.09		-.05	.09		-.11	.09	
LGBQ+	-.08	.13		.10	.13		.06	.13		.13	.13		.03	.13	

Note: *p < .05, **p < .01, ***p < .001; Note that for control variables we used effect coding so that coefficients are not compared to an arbitrary reference group but instead to the average score of faculty in the model

Table 6
Relationships Cultural Convergence and Difference between Individual Faculty Teaching Practices and Discipline Mean Teaching Practices

	Higher Order Learning			Reflective and Integrative Learning			Quantitative Reasoning			Collaborative Learning			Discussions with Diverse Others		
	B	S.E.	Sig.	B	S.E.	Sig.	B	S.E.	Sig.	B	S.E.	Sig.	B	S.E.	Sig.
Discipline Mean Cultural Convergence	-.12	.05	**	-.04	.05		-.13	.05	**	-.06	.05		-.03	.05	
Individual Faculty Cultural Convergence	.00	.05		-.14	.05	**	.02	.05		.00	.05		.04	.05	
Course Details															
Lower Division	.10	.08		.01	.08		.00	.08		-.04	.08		-.05	.08	
Upper Division	-.17	.07	**	-.04	.07		-.09	.07		.03	.07		-.06	.07	
Small Course	.03	.06		-.06	.06		.08	.06		-.07	.06		.00	.06	
Medium Course	-.07	.06		-.02	.06		.01	.06		-.11	.06		.00	.06	
Not a GenEd	.05	.05		.08	.05		.00	.05		-.01	.04		.02	.05	
Course Format															
In-person course	-.03	.06		.08	.06		-.10	.06		-.08	.06		.09	.06	
Online course	.08	.08		-.03	.08		-.03	.08		.19	.08	**	.06	.08	
Faculty Characteristics															
# of Undergraduate and Graduate Courses Taught	.01	.02		.01	.02		.00	.02		.05	.02	**	.04	.02	*

# of Years Teaching	.00	.00		.00	.00		.00	.00		.00	.00		.00	.00	
Part Time	-.09	.07		.02	.08		.03	.07		.13	.07		.19	.08	**
Academic Rank															
Professor	-.08	.09		.10	.09		.06	.09		.23	.09	**	.02	.09	
Associate Professor	-.20	.09	*	-.11	.09		-.06	.09		-.03	.09		.07	.09	
Assistant Professor	-.19	.09	*	-.20	.09	*	-.24	.09	**	-.09	.09		-.14	.09	-
Instructor or Lecturer	.04	.09		.07	.09		-.06	.09		-.02	.09		-.03	.09	
Gender Identity															
Man	.07	.10		.08	.10		-.08	.10		-.04	.10		-.04	.10	
Woman	-.09	.10		-.10	.10		.06	.10		.00	.10		.02	.10	-
Racial/Ethnic Identity															
Asian	.01	.18		.13	.18		-.08	.18		-.16	.18		.13	.18	
Black or African American	.18	.16		-.02	.17		.13	.16		.02	.16		-.06	.17	
Hispanic or Latino/a	.09	.24		-.28	.24		-.15	.24		.08	.24		.01	.24	
White	-.03	.09		.05	.10		-.04	.09		.01	.09		-.18	.10	*
Another race or identity	.19	.25		-.08	.25		.33	.25		.02	.25		.37	.25	
Multiracial	-.16	.21		-.05	.21		-.25	.21		.01	.20		.05	.21	
Sexual Orientation															
Straight (heterosexual)	.16	.09		-.02	.09		.08	.09		-.17	.09		-.06	.09	
LGBQ+	-.21	.13		.06	.13		.08	.13		.38	.13	***	.04	.13	

Note: *p < .05, **p < .01, ***p < .001; Note that for control variables we used effect coding so that coefficients are not compared to an arbitrary reference group but instead to the average score of faculty in the model