



THE NEWSLETTER

INTEGRATIVE PATHWAYS

OF THE ASSOCIATION FOR INTERDISCIPLINARY STUDIES

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James Welch IV, Editor

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President's Report

Board Discusses AIS Future at March Meeting

By James Welch IV

President, Association for Interdisciplinary Studies
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The AIS Board of Directors met last March in a nice little conference room at the Wyndham Garden Hotel in Elk Grove Village, Chicago. Several board members had difficulty with travel, and thus, for this meeting, we made extensive use of Skype to allow their voices to be heard. Although there were some technical difficulties here and there, this worked remarkably well, and the board will be exploring more telecommunication options in the future.

The board heard reports from all officers in turn. According to the Treasurer's Report submitted by Bill Newell, our finances continue to be solvent, even though there will be additional disbursements this year due to the publication of an additional edition of *Issues in Interdisciplinary Studies* honoring Bill Newell.

The board discussed the particulars of conference funding and its impact on our bottom line. The report from our Business Manager, Scott Crabill, spurred discussion about the pros and cons of having a physical office space

hosted by Oakland University. We considered the hypothetical possibility of running a virtual office, and what that would entail. The board discussed the particulars of moving the AIS website from Oakland University to an independent server host.

The Vice President of Relations, Khadijah Miller, reported on the inter/diversities theme for the upcoming 2018 conference, hosted by Wayne State University. Khadijah led a discussion that emphasized the need to reach out to the other studies programs/organizations that are interdisciplinary in nature, but focus on particular themes, such as: National Women Studies, National Association for Black, African, and Hispanic Studies, Digital Humanities, Leadership Studies, Asian Studies, International Studies, or Women and Gender Studies. The board needs to expand its definition on who is interested in interdisciplinarity. Even disciplines like Sociology and Psychology consider themselves to be interdisciplinary. We agreed that AIS should notify a broader audience about our conferences through the

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AIS Fall Conference Set for Detroit Oct. 11-13

www.oakland.edu/ais

2018 Mid-Year Report

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listserv and other means. Let's spread the word!

Khadijah reported on the last session of the emerging scholars forum and student participation in AIS. We discussed expanding the number of travel grants available to student presenters, encouragement of undergraduate participants, and the possibility of reaching out to interdisciplinary-minded K-12 instructors.

Our Vice President of Development and IT director, Jennifer Dellner, reported on progress of listing *Issues in Interdisciplinary Studies* with EBSCO. We have signed a contract with them and are moving ahead in establishing a formal relationship. This is the culmination of a decade of work! Jennifer is working on rebuilding

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our website on the host, Reclaim, and will try to build a prototype over the next few months. Jennifer will be looking for assistance from the membership. Jennifer reported that Facebook membership is growing and listserv membership is fairly stable.

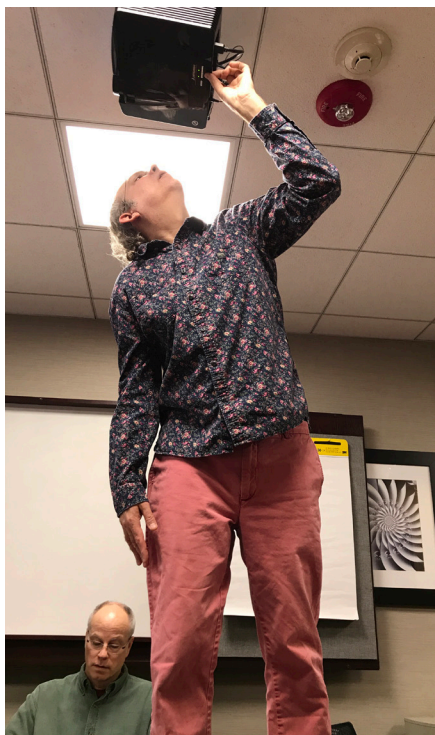
Sven Arvidson delivered the report from the editors of *Issues in Interdisciplinary Studies*. They are working on both the regular 2018 issue and the Festschrift honoring Bill Newell. For 2019, they will be looking for a March 31 deadline and will have another special issue for Julie Thompson Klein. It's a lot of work, and an accelerated timeline, but seems to be on target. We discussed possibilities of who could replace Gretchen Schulz as co-editor whenever she decides to step down. It would need to be someone who publishes and likes tough work and is willing to give a lot of positive feedback. The job requires a constant, but not excessive, amount of work. We talked about the best

way to transition editors.

A related topic of discussion was the revamping of the *Issues in Interdisciplinary Studies* editorial board. We need about 10-12 people who are active in the field (possibly outside of AIS), who would be willing to be Ambassadors for the association and perhaps do some periodic peer review.

James Welch delivered the report on our quarterly newsletter, *Integrative Pathways*. The January issue was very late, due to the great amount of material included and the fact that we introduced a bi-lingual section, coordinated by Bianca Vienni Baptista. James discussed expanding members who could act as book reviewers. The board discussed formulating a survey for the membership that would inquire about: moving the newsletter to electronic distribution only, possibilities for volunteer work, hosting an AIS conference, and joining an AIS section.

Marcus Tanner, executive director of the AIS Honors Society, updated the board on the group's activities. Michelle Buchberger has come on board to assist him. The society has 10 institutional members and has done some



Dr. James Welch, AIS president, attempts unsuccessfully to get the projector to work for the AIS mid-year meeting. Alas, for missing dongles . . .

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2018 Mid-Year Report

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productive fundraising. They are working to create a manual with by-laws and procedures, and establishing a board of directors that includes a student member.

The board discussed Brian McCormack’s report on AIS sections. Sections are important to AIS and have the potential to help with other areas of the membership, creating opportunities to overlap with other organizations. We compared the way other academic organizations handle sections. The board discussed ways of streamlining the process of section membership through the AIS application form and website and through conference registration. When we revamp the website, we will include spaces for AIS sections.

With past president Machiel Keestra, we discussed enhancing our relations with international organizations, and the possibility of expanding their participation in the 2019 Amsterdam conference.

The publications committee reported on our negotiations with Texas Tech University Press as a possible venue for publishing *Issues in Interdisciplinary Studies*. The cost involved seems to be less than our current printer, and they seem to be enthusiastic about adding our journal to their offerings. Our relationships with ERIC

and EBSCO should mesh well with them. Marcus Tanner will be pursuing this in the months to come.

Roz Schindler, our conference liaison, presented all the upcoming conference reports. We discussed the strengths and weaknesses of the 2017 conference at UMBC and feedback we received from the conference coordinators there. For the upcoming 2018 conference at Wayne State in Detroit, we talked about the logistics of

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book sales and an AIS publication list, transportation options and budgetary matters.

We also discussed board-sponsored panels and workshops that would be included in the conference schedule. The board passed a motion to kindly extend the deadline for conference submissions. The 2019 conference in Amsterdam will not be a joint conference with other European transdisciplinary organizations, as originally hoped; however, we will encourage participation from members of other organizations to promote cross-fertilization and mingling. The conference will focus on a spirit of collaboration and synergy. The board workshopped some of the language in

the conference vision statements. We discussed webcasting some conference sessions to make them available for those who cannot make the trip.

The 2020 conference will be held at Sonoma State University in California. Former AIS President Karen Moranski will be one of the conference coordinators there. The theme of sustainability is surfacing in their preliminary deliberations, along with indigenous studies and film studies.

The 2021 conference will be hosted by Southern Utah University. They are very enthusiastic about AIS and are working to collaborate with other Utah schools.

After enjoying some deep-dish pizza, the board spent the afternoon working

in teams to revise the AIS by-laws and constitution. James will compile their feedback over the next few months and continue the process of finalizing an update to our organizational documents. These corrections will be distributed to the membership for approval as soon as they are completed. With that task in hand, the AIS board of directors adjourned and enjoyed a wonderful dinner at a nearby Thai restaurant.

And that is my report. Please feel free to contact me if you have any questions or concerns, or if you’d like to participate in any of our exciting initiatives.

James Welch II

An Open Letter to AIS Colleagues from Roslyn Schindler and Nick Schroeck

On behalf of Wayne State University in the heart of Detroit, Michigan, we look forward to welcoming you to the 40th Association for Interdisciplinary Studies Conference: October 11-13, 2018.

Yes, we will be celebrating 40 years of AIS, and we hope that you will join us for this special anniversary conference. Wayne State University (WSU) has a rich history and tradition, and 2018 marks its 150th anniversary. AIS is proud to be part of that celebration.

WSU has made great strides in multidisciplinary, often interdisciplinary, research, teaching, and scholarship across its 13 colleges and schools, offering 370 academic programs, including a new Global Studies Program:

“WSU is home to [28,000] students from nearly every state and 60 countries—the most diverse student body among Michigan’s 15 public universities and a microcosm of the real world...Academic excellence and pioneering research are central to our mission and a primary reason why graduate and undergraduate students alike choose to attend Wayne State. [And very important,] Wayne State...[is] a driving force behind the city’s resurgence” (www.wayne.edu).

Wayne State University and Detroit have much to offer conference goers. Some attractions are within walking distance of our conference hotel, the Crowne Plaza Detroit—such as the Detroit River Walk and Campus Martius. Some destinations are within a short bus, trolley, or taxi ride. The Detroit Institute of Arts awaits you as do the Motown Museum, the Charles H. Wright Museum of African American History, Eastern Market, the Fox Theater, Comerica Park (where our Tigers are at home), the Fisher Theater, the Wayne State University Hilberry and Bonstelle Theaters, and so much more. Arrive early or stay late. Our hotel will accommodate you at the conference rate. And check this out: <http://www.freep.com/story/travel/michigan/2017/10/24/detroitglobal-respect-lonely-planet/791360001/>

The 2018 conference theme is “‘Inter/diversities’: Intersecting Race, Gender, Class, Abilities, Theories, and Disciplines.” The term, “Inter/diversities,” has been explored at previous AIS conferences, displaying both broad appeal and depth of meaning. It is an important, relevant, and timely conference theme for 2018.

With warm regards,

*Roslyn Abt Schindler,
Associate Professor Emerita,
Dept. of Classical and Modern Languages,
Literatures, and Cultures*

*Nick Schroeck,
Assistant (Clinical) Professor and Director,
Transnational Environmental Law Clinic,
Law School*

40th Conference of the Association for Interdisciplinary Studies

October 11-13, 2018

Conference Theme: “Inter/diversities’: Intersecting Race, Gender, Class, Abilities, Theories, and Disciplines”

“Inter/diversities” has been explored at previous AIS conferences, displaying both broad appeal and depth of meaning. It is an important, relevant, and timely conference theme for 2018.

AIS is celebrating 40 years in 2018, and we hope that you will join us for this special anniversary conference, which coincides with Wayne State University’s Sesquicentennial Anniversary.

WSU has a rich history and tradition, and AIS is proud to be part of that celebration.



**WAYNE STATE
UNIVERSITY**



Book Review

Klein and O'Rourke Review New Book on Interdisciplinary Discourse

By Julie Thompson Klein

Wayne State University
and Michael O'Rourke
Michigan State University

Team-based research has not been a major focus in the past for the Association for Interdisciplinary Studies (AIS), which concentrated over many decades on individual research with emphasis on teaching and learning. The 2017 number of the AIS journal *Issues in Interdisciplinary Studies* marked an important step towards greater recognition of collaborative research with a special section devoted to this growing area of interest. Drawing insights from psychology and cognitive/neuro sciences, the authors investigated methodological pluralism, philosophical reflection and metacognition, strategies for overcoming barriers, and bridging science, art, and subjective experience.

The appearance of a new book on discourse within interdisciplinary collaborations is also an occasion for reflecting on the topic of team-based research. Written by two scholars in the United Kingdom, Seongsok Choi and Keith Richards, the book takes a two-fold approach. The first part is a literature review aimed at identifying key aspects of interdisciplinarity. The second part analyzes excerpts from team meetings in order to understand what the authors contend is a neglected topic in the literature: how to actually do interdisciplinary research. We agree that more attention needs to be paid to how it operates, and Choi and Richards offer valuable insights from discourse analysis of excerpts of conversations in meetings. However, we also note

shortcomings in their literature review and conclusions they draw from both the review and excerpts.

Interdisciplinarity

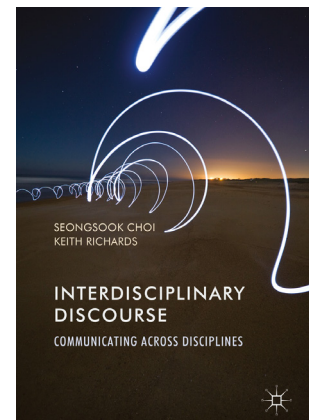
Chapter 1 sets up subsequent sections of the book, launched by an excerpt from a systems biology meeting to introduce the topic of how talk develops in interdisciplinary groups.

Chapter 2 focuses at greater length on disciplines, based on the premise they constitute the foundation of all interdisciplinary work. Synthesizing insights from literature review, Choi and Richards characterize defining aspects, elements, and metaphors of disciplinarity. In the course of discussion, they also claim to correct an assumption that common elements reveal a singular model of disciplinarity.

This premise is not new, however. It is already countered in a growing body of literature depicting the heterogeneity and dynamism of disciplines. They also make the dubious claim that most new disciplines evolve from subdisciplines though acknowledge variances in three short examples: Computer Science, as the result of moving away from a discipline; Psychosocial Studies, developing from one domain; and Applied Linguistics, arising from doubts about disciplinary identity.

When Chapter 3 turns to interdisciplinarity, Choi and Richards sort through a thicket of forms, claims of origin, typologies, models, and purposes ranging from unity of knowledge to instrumentality and critique. They also acknowledge a variety of problems, interests, and challenges as well as differing logics and starting points for definition.

Yet, their tendency to feature some



Choi, Seongsok and Richards, Keith (2017). *Interdisciplinary Discourse: Communicating Across Disciplines*. London: Palgrave Macmillan. ISBN-13: 978-1137470393 ISBN-10: 1137470399.

authors over others results at times in incomplete representation of the literature. For instance, they affirm Lisa Lattuca's (2001) claim that development of definitions began in 1930s and peaked in 1970s and 1980s, but in doing so ignore newer typologies (Klein, 2017). They also cite Lattuca's work to illustrate the primacy of integration, but she prioritized interaction of disciplines instead.

In Chapter 4 Choi and Richards turn to their primary interest—interaction. They acknowledge ongoing debate about whether interdisciplinarity is individual or collaborative. However, they contend group activity constitutes the most characteristic form today. They also take up a recurring criticism throughout the book: that

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studies prioritizing discrepancies in meanings of the same word are the major obstacle to interdisciplinary collaboration. Given their position, they counter Allen Repko's (2008) assertion that reaching agreement on terms is a crucial preliminary step for creating common ground. Choi and Richards argue, instead, that it is emergent throughout the process of collaboration. They also propose an alternative to Repko's distinction between integrationist and generalist approaches to interdisciplinarity, recasting them as integrationist and interactionist approaches that intersect in the process of actually "doing" interdisciplinary research.

Moreover, they are critical of case- and interview-based studies, noting the potential narrowness of personal accounts and impressionistic conclusions drawn from them. Yet, the authors are not immune from the danger of narrowness themselves, since Part II of the book relies heavily on selected excerpts of transcripts from meetings.

Interdisciplinary Talk

The heart of Choi and Richards' analysis of interdisciplinary talk focuses on excerpts from team meetings, focusing on epistemic aspects of interactions, disciplinary identities, and leadership. Detailed examination of conversations, Choi and Richards rightly caution, would be impossible on a large scale. Yet, discourse analysis of talk in meetings furnishes a microscopic understanding of its role in crossing knowledge boundaries. As a practical matter, readers unfamiliar with the methodology of discourse analysis would do well to look at the explanatory Appendix first in order to avoid confusion about discourse markers in the excerpts. "Erm," for example, does not refer to content. It is a vocalized

. . . Choi and Richards emphasize epistemics as a theoretical framework for understanding how knowledge is exchanged and constructed in groups. Collaborators occupy epistemic domains that are individuated by what they know and how they situate themselves to contribute to interdisciplinary discourse.

filler. Their data set also merits preliminary qualification.

The data set, which is described in Chapters 4 and 5 and is referenced in other parts of the text, comprises transcripts from project meetings involving eight groups, five of them in systems biology. The full set includes over 400 hours of audio recordings, though only 50 hours and 1 minute were selected for examples. The disciplines represented in the book cover a wide range, including life, physical, mathematical, and computer sciences as well as humanities and arts. Groups were also in various stages of their life cycles, though Ch. 5 focuses on transcripts from initial project meetings. Furthermore, groups were at different stages of interdisciplinary development. The five systems biology teams involved participants who were part of an established interdiscipline. In contrast, the other three groups involved members of different disciplines without a shared sense of belonging to a particular domain. Furthermore, groups had different purposes, although these purposes were not fully specified in all eight cases.

Chapter 5 is the first of two chapters to emphasize the role of knowledge dynamics in interdisciplinary research. Following the work of Heritage (2012) and Heritage & Raymond, (2005), Choi and Richards emphasize epistemics as a theoretical framework for understanding how knowledge is exchanged and

constructed in groups. Collaborators occupy epistemic domains that are individuated by what they know and how they situate themselves to contribute to interdisciplinary discourse. Within that discourse, collaborators are positioned individually on an epistemic gradient with respect to claims they make, from more knowledgeable (K+) to less knowledgeable (K-), and with epistemic rights of access flowing to those whose epistemic status is closer to K+. In contributing to interdisciplinary discourse, individual speakers adopt a particular epistemic stance that reflects how they want to position themselves in light of their status.

Chapter 5 begins by applying epistemics to analyzing negotiation of knowledge claims in a meeting of a systems biology team, during which an unusually direct correction of a project leader occurred. A junior team member who already occupied a K+ position facilitated the leader's need to move to that position in a way which "overrides any social expectations regarding interactional niceties" (p. 115). The chapter then shifts to a different framework for epistemic analysis, borrowed from Amey and Brown (2006) by way of Hamilton, Watson, Davies, & Hanley (2009). This stage framework emphasizes development of teams from disciplinary domination (Stage 1) to coordinated coexistence of disciplines (Stage 2) to fully integrated, adaptive

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teamwork (Stage 3). In analyzing excerpts from initial meetings of new teams, Choi and Richards also identify four patterns. Individuals deploy expert knowledge by marking their place to declare relevance; telling territory through displaying, deploying, and directing their knowledge; making connections; and clarifying terminology.

In Chapter 6, the authors combine the two frameworks of Epistemics and Stages for a fuller account of collaborative construction of knowledge. They move from Chapter 5's focus on Stage 1 to more coordinated and integrated stages when collaborators work together to develop mutual understanding and joint knowledge. Analyses of excerpts highlight development of "supportive alignment" that enables collaborative knowledge building, the co-construction of responses in "affiliative talk" among team members, and ways that teammates declare and respond to challenges. These aspects of knowledge co-construction illustrate how discourse can "flatten" the epistemic gradient among teammates, generating broad understanding. The chapter also presents detailed analysis of the discourse marker "so," revealing how collaborative knowledge construction emerges from the complex coordination of discourse contributions.

The book moves toward a conclusion with Chapter 7, on disciplinary identity, and Chapter 8, on leadership. Chapter 7 examines systems biology teams to illustrate how territorial sentiments affect whether

claims are accepted or rejected. The concept of epistemic rights is used in examining the status of experimentation over interpretation, illustrated by tensions between "Wets" and "Drys" in systems biology. Wets conduct experiments, while Drys analyze data gathered from experiments. Analyses of conversations further illustrate the concepts of epistemic asymmetry, legitimacy, and primacy within an intersubjective space of communication. Choi and Richards' treatment of leadership in Chapter 8 is weakened by gaps in literature review, especially the growing bod-

Choi and Richards have made an insightful contribution to the literature on interdisciplinary research process by illuminating aspects of collaboration while providing an analytical model others could implement. However, three areas of concern arose in our reading.

ies of work on team science (Cooke & Hilton, 2015) and transdisciplinary research involving stakeholders in society in the research process (Network). The authors highlight distributive leadership, although they acknowledge that leaders sometimes have to engage in top-down control of discussion to move a project forward. Status is a widely recognized factor in literature on inter- and trans-disciplinary teams, but it is not always tied to hierarchy.

Concluding Assessment

Choi and Richards have made an insightful contribution to the literature on interdisciplinary research process by illuminating aspects of collaboration while providing an analytical model others could implement. However, three areas of concern arose in our reading.

Literature Review

Choi and Richards' literature review is more comprehensive than

many but is still limited. To reiterate, any literature review must be selective but they tend to over-rely on selected sources without comparative analysis. For instance, they construct a typology of relational dimensions that begins by highlighting the distinction between "narrow" and "broad" interdisciplinarity, but misattribute it as a primary categorization to Klein. In proposing an alternative distinction of "focused" interdisciplinarity, they also ignore literature on hybrid specialization. And, they minimize a number of relevant resources on interdisciplinary discourse, prominent among them Myra Strober's (2001) book *Interdisciplinary Conversations*, Britt Holbrook's (2012) philosophical analysis of interdisciplinary communication, Jessica Thompson's (2009) concept of "collective communication competence" (CCC) in interdisciplinary research teams, and an entire book on communication and collaboration in interdisciplinary research (O'Rourke, Crowley, Eigenbrode, & Wulfhorst, 2013).

Methodology

Discourse analysis of conversations by its very nature must move slowly through transcripts, drilling down in small pieces of text to draw out insights about knowledge, identity, and power. Meetings are windows on the soul of interdisciplinary projects, and interactions reveal both epistemic and social dynamics. Yet, Choi and Richards did not supply enough information about the groups they consider. They provide glimpses. For example, one systems biology team is a 3-year project that is 1.5 years in, and two other systems

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biology teams are engaged in new projects. However, we lack details about their members: e.g., whether they worked together on projects before, how much experience they have on interdisciplinary teams, and what group each group is meant to accomplish. Such questions are important because they highlight the value of engaging in conversations about terminology and conceptualization. The authors also use only a selection of their entire data set, suggesting they might make existential claims about particular findings but not be placed to make universal claims about interdisciplinary discourse. Finally, their interpretation of excerpts does not support a clean distinction between Stages 2 and 3.

The "Strawman" Argument of Terminology

As Choi and Richards rightly observe, differences among disciplines are often delineated in terms of "languages" disciplinary experts speak. In that sense disciplinary differences parallel linguistic differences, suggesting one way to operate at the interface of disciplines is to normalize language by building a common vocabulary. However, at various points they declare "[t]here was no evidence whatsoever in our data set of any problems, misunderstandings or disagreements arising from terminological differences" (p. 259). This finding motivates implications for practice in their conclusion: they assert "it is inadvisable to place too much emphasis on terminological challenges" in interdisciplinary research contexts. Instead, they suggest devoting time to "addressing the much more complex issue of conceptual differences" (p. 263). However, such arguments against the "terminology question" are ineffective, and in fact are akin to a "strawman" position. More-

over, their jest about a jargon-heavy comment reported on p. 202 is itself a terminological observation that could have been aimed at avoiding the challenge of understanding an opaque contribution to discourse. Here too, selectivity of data leaves readers unable to decide whether the example in question was an isolated problem of terminological difference or arose more frequently.

Terminology does not stop at the level of language. Repko (2008), for example, acknowledges the role of language in creating common ground but indicates it does so through concepts and assumptions. Bracken & Oughton (2006) also focus on "common understanding" as the achievement of shared vocabulary, while Donovan, et al. (2015) highlight variable uses of the term "hypothesis" across disciplines. Some scholars restrict themselves to the level of language, but most who highlight differences in meanings of the same words recognize their interrelationship with conceptual differences. For Repko, Bracken & Oughton, and others, terminology is only important insofar as it is a vehicle for introducing ways of thinking into deliberations and decision making of interdisciplinary teams. In that vein, one of the principal lessons of the Toolbox Dialogue Initiative (TDI), a US NSF-sponsored research project to which we both contribute, is the link between language and conceptualization. TDI conducts dialogue-based workshops that focus on enabling collaborators to see their common problem through each other's eyes, a process that often involves exploration of terminology (O'Rourke & Crowley, 2013). In sum, interdisciplinary theorists who talk about terminology do not simply stop at the level of language, and researchers interested in coordinating concepts, would be well served by recognizing the relationship of linguistic expression and conceptualization.

Although these concerns suggest that care should be taken in drawing general conclusions about interdisciplinary discourse from this book, we believe that it merits reading. It supplies close consideration of interdisciplinary interactions, demonstrates the value of discourse analysis as a method, and illuminates several critical determinants of interdisciplinary success.

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Column

Interdisciplinary Publications of Note

By Julie Thompson Klein and Rick Szostak

This column is the first in a series that will be calling attention to new and recent publications, including both books and articles of major significance. The emphasis will be describing new works rather than full reviews, though this inaugural entry includes notice of an updated version of an earlier book. Our purpose is to inform AIS members of works deserving their fuller attention. The first book dates to 2013 in hard cover and 2014 in paperback. It is a major contribution to the literature on interdisciplinarity within our window of recent publications.

Barry, A. & Born, G. Eds. (2014). *Interdisciplinarity: Reconfigurations of the Social and Natural Sciences*. Abingdon, Oxon; New York: Routledge.

In this collection of essays, editors Andrew Barry and Georgina Born aim to retheorize interdisciplinarity, based on the premise that this and the accompanying concept of integration, should be understood less as a unity and more a field of differences—in short, a multiplicity. They urge mapping genealogical investigations that expose path-dependencies and temporalities in particular vectors of the concept, while redressing exaggerations and misconceptions associated with it. Barry & Born frame the book with a lengthy introduction followed by eleven invited chapters that range in focus across the nature of disciplinarity and modes of parasitism, trespassing, and poaching as well as examples from ethnography in the IT industry, science and technology studies, environmental science, medical humanities, cybernetics, and the art-science movement.

Four themes cut across chapters of

the book: the relationship between interdisciplinarity and generation of novel objects and practices, ecologies in which it is generated, challenges of evaluation, and pedagogy. In their introduction, Barry and Born sort through notions of multidisciplinary, interdisciplinarity and transdisciplinarity. They subsequently distinguish two frameworks: modes and logics of interdisciplinarity. The first—modes—highlights diverse ways interrelationships between disciplines are configured: integrative-synthesis, prominent in recent policy interventions and theoretical literature; subordination-service, in which one or more disciplines is secondary to others; and agonistic-antagonistic, which rejects synthesis and disciplinary divisions of labor in favor of contesting or transcending given epistemology or ontological assumptions.

In the second framework—logics—Barry and Born distinguish three constructs guiding current accelerated interests in interdisciplinarity: accountability, innovation and ontology.

Accountability is often linked with breaking barriers between science and society. More than one form of accountability operates, however, from legitimating and regulating research practices to more radical and even militant initiatives. It is also apparent in engaging stakeholders in research projects. Illustrations include the field of art-science, critical social movements, and German Öko-Institute.

Innovation is apparent in highlighting of new problems or experiments in methodology and theory. Ethnography in the IT industry is a major illustration, ranging from instrumentalist service to product

design to challenges to narrow technology-driven investment strategies. This logic is also evident in interdisciplinary environmental and energy research.

Ontology counters emphasis on epistemology by raising questions of how knowledge practices intervene in the world and generate hybrid or relational objects, as well as bifurcation of nature and social arrangements that interdisciplinarity mobilizes. Ethnography in the IT industry and environmental research may read be read through this lens, while acknowledging combinations with the logic of innovation in some instances.

Barry & Born's call for retheorizing is a fresh voice in the continuing crossfire of what constitutes "genuine" or "true" interdisciplinarity. They situate genealogies of interdisciplinarity in a heterogeneous field across commercial and academic sites, the boundaries of which are in their words "animated by continuing controversies and differences." The book also reflects a resurgent interest in the UK in both interdisciplinary studies and research, enlarging the scope of discussion across national literatures.

NOTICE OF SECOND EDITION

R. Miller, *International Political Economy: Contrasting World Views*, 2nd Ed. Abingdon, Oxon; New York: Routledge, 2018.

Ray Miller published the first edition of this textbook in 2008, the same year he gave a keynote address at the AIS conference and received the Boulding Award from the AIS. As a

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scholar who did much to clarify what interdisciplinarians mean by “disciplinary perspective” or “world-view,” it is no surprise that his approach involves examining in detail different perspectives taken to study of international political economy (IPE). As a scholar of interdisciplinarity he is also careful throughout to clarify different meanings attached to terminology such as “capital.” He explores the market-oriented perspective most closely associated with the disciplines of economics, Marxist perspective, and what he terms the multi-centric organizational model that captures the views of institutionalists in many disciplines. Each of these three perspectives is the subject of two chapters. The first outlines key elements of the perspective, and the second applies the perspective to key issues in the field. Ray and Rick, the co-author of this column, have

had great discussions about the role of integration in interdisciplinary analysis over the years: He does not attempt to integrate these three perspectives but rather lets the reader appreciate each on its own merits. Ray argues in the Preface that each approach has much to tell us, while criticizing those who attempt to conflate the three.

The basic structure of the book remains the same in the second edition. But Ray has updated the topics covered. In particular, there is now an extensive treatment of the financial crisis that was only beginning as the first edition went to press. He has also updated his theoretical discussions to reflect the literature of the last decade. Feminist scholarship receives greater attention within all three worldviews. Ray has also greatly expanded his concluding chapter in which he compares how the three worldviews treat a handful of current issues in the field.

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The Association for Interdisciplinary Studies is the U.S.-based international professional association devoted to interdisciplinary teaching (including service learning), research, program administration, and public policy. Interdisciplinarity integrates the insights of knowledge domains to produce a more comprehensive understanding of complex problems, issues, or questions. AIS serves as an organized professional voice and source of information on interdisciplinary approaches and the integration of insights from diverse communities to address complex problems in education and research. Founded in 1979, it is incorporated as a non-profit 501(c)3 educational association in the state of Ohio.

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