Disciplinarity and Interdisciplinarity

(Draft 3)

“. . . we can seek to transform the disciplines, encourage communication between them or use them to create new intellectual configurations or alliances, but we can never entirely dispense with them as means of organizing knowledge. Interdisciplinarity could therefore be seen as a way of living with the disciplines more critically and self-consciously, recognizing that their most basic assumptions can always be challenged or reinvigorated by new ways of thinking from elsewhere. Interdisciplinary study represents, above all, a denaturalization of knowledge: it means that people working within established modes of thought have to be permanently aware of the intellectual and institutional constraints within which they are working, and open to different ways of structuring and representing their understanding of the world.”

Interdisciplinarity has been prescribed for years—at Queen’s and elsewhere—with good reason. It is prominent in the recommendations of both Principal Woolf’s Where Next? and the Academic Writing Team’s Imagining the Future. With some qualifications we endorse these recommendations. But we need to be clear about what we are recommending when we recommend “interdisciplinarity,” how it relates to disciplinarity, how it emerges and develops, how it can be fostered, and why we should want it.

Definitions

“Interdisciplinarity” is a slippery term. It has a precise definition but is also used loosely to denote anything from disciplinary variety to anti-disciplinarity. As Joe Moran has argued, “the value of the term [. . .] lies in its flexibility and indeterminacy” (14). To clarify what has been recommended for Queen’s in the name of interdisciplinarity, we nevertheless begin with some definitions.

Drawing on a longer account by Julie Thompson Klein, Deborah DeZure has usefully defined interdisciplinary learning as

the synthesis of two or more disciplines, establishing a new level of discourse and integration of knowledge. It is a process for achieving an integrative synthesis that often begins with a problem, question, or issue. It is a means of solving problems and answering complex questions that cannot be satisfactorily addressed using single disciplinary approaches.

DeZure then proceeds to distinguish the interdisciplinary from other metadisciplinary approaches:

2 WN 7; IF sec. 4.3 and goal 4.7.
3 On the complexity and definition of “interdisciplinarity,” see Klein 1990, chs. 1-3; Austin et al.; DeZure; Moran 13-16.
4 DeZure p. 1, quoting and paraphrasing Klein 1990, pp. 66, 188; on 66 Klein is herself summarizing a discussion by Erich Jantsch.
This is in contrast to *multidisciplinary*, which is a process for providing a juxtaposition of disciplines that is additive, not integrative. The disciplinary perspectives are not changed, only contrasted. Team-taught courses in which faculty provide serial lectures are often multidisciplinary. *Transdisciplinary* approaches provide holistic schemes that subordinate disciplines, looking at the dynamics of whole systems, such as structuralism or Marxism. *Cross-disciplinary* methods view one discipline from the perspective of another, e.g., referring to examples of expressionism in literature in an art history class on expressionism. (*ibid.*)

In Queen’s planning discussions, “interdisciplinarity” has been used for all of these things and others as well. Rather than quibble over terminology, we therefore defined the term “loosely” in our consultations to designate “an experience of investigating an issue or problem that relies on contributions from several disciplines, and that may be taught or mentored in a collaborative manner” (Pillar II). DeZure’s mapping of the cognate terms will help us recognize semantic slippage, but the important points to be considered here remain (1) what Queen’s students and faculty want when they want “interdisciplinarity,” and (2) how the university can best satisfy those wants.

**What we want when we want “interdisciplinarity.”**

One thing we clearly want is more freedom for disciplinary sampling and variety—more border passes. Daniel Woolf puts this best in *Where Next?* Under the rubric “Interdisciplinarity,” he states: “We need to find ways around or through departmental, faculty, and in some cases, university boundaries” (7). These “boundaries” or “barriers” are complaints of long standing at Queen’s. A SCAD Report of 1996 calls for greater “Interdisciplinary and Inter-Unit Cooperation” and recommends “That the University and its academic units facilitate interdisciplinary activity by eliminating administrative barriers to inter-Departmental and inter-Faculty activities.”

At the level of course-availability, at least, there is little evidence of progress on this front. Commerce students required to take at least 4.5 credits (old-style) in Arts and Science still complain of being unable to register for the courses that interest them. A faculty member in English reports that her students lack access to upper-level courses in other disciplines, while her colleague in History notes that courses that should be cross-listed are not, and that her seminar on Chinese history therefore excludes the students who would be most interested in taking it. Interdisciplinary Special Field Concentrations at Queen’s have recently been suspended because, due to departmental prerequisites, “students had difficulty taking courses in other departments.” The Department of

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6 APTF Consultation with Queen’s School of Business, 15 March 2011.
7 Town Hall on Disciplinarity/Interdisciplinarity, 11 April 2011.
8 SCAD, “Proposal for a Spanish Latin American Studies Minor,” Senate Agenda for 28 April 2011, Appendix Cc, p. 36. In the same Senate Agenda, see also the SCAD “Proposal for a Medieval Studies Minor.” In both cases a 5-credit minor is being introduced to replace a 14-credit Special Field Concentration, with cross-disciplinary barriers at issue in the suspension of both SPFs. This is clear
Political Studies warns that new constraints on teaching resources pose “[n]ew barriers for access to our courses by students in other departments.” Environmental Studies complains of “the complexities of timetabling associated with interdisciplinarity” and of “the silos of Queen’s faculties and departments that impede collaboration, particularly when resources are scarce.” Religious Studies writes in response to Where Next?: “We believe that the University must address structural barriers that stand in the way of true disciplinarity [sic]. In particular, find a better measure of departmental performance than bums-in-seats: this discourages inter-departmental cooperation.” Many more complaints of these kinds were voiced in our consultations.

If these statements are representative, the “boundaries” or “barriers” problem appears to relate more to course-availability than to research (more about this below). For students choosing courses there are actually several barriers, closely related but distinct:

1. Barriers to students in one concentration taking upper-level courses in another department, faculty, or school;

2. Barriers to cross-listing of courses between, e.g., History and Political Studies;

3. Barriers to the team-teaching of courses by two professors, especially from different units, to joint-offerings of courses by two or more units, and to other “forms of inter-departmental cooperation.”

Some of these are barriers merely to disciplinary variety in students’ programs, while others may be barriers to the development of intercultural or interdisciplinary courses. But they all remain serious impediments, frustrating the learning and teaching ambitions of both our students and our faculty.

In his brief for “Interdisciplinarity,” Principal Woolf not only anticipates these complaints but indicates their roots: “on the teaching side, we are much less successful at interdisciplinary initiatives because budgets are apportioned to departments. […] It is tough for a department head trying to maintain courses to enable a faculty member to evidence of the way in which cross-disciplinary barriers are limiting our potential to offer rich programs even where all of the resources are available on campus.

9 Political Studies, Unit Response to Where Next?, ca. April 2010, p. 2; see also p. 14.

10 Environmental Studies, Unit Response to Where Next?, ca. April 2010, p. 1. The same report also suggests a place where the boundaries are breached, in connection with graduate supervision in its MES program: “cross-appointed faculty […] who interact with graduate students as co-supervisors or supervisory committee members . . . . [have] provided us with a way to break down the barriers of existing university structures through graduate student experience.” (p. 2).

11 Religious Studies, Unit Response to Where Next?, 19 April 2010, p. 3.

12 See, further, comments by mark, David Veitch, Cassandra Frengopoulos, and others in response to Pillar II. The School of Medicine Response to Where Next? proposes a wonderful “trans-faculty program in ‘Changes in Global Health’” (14-15) but warns that its dependence on “cooperation between faculty belonging to multiple Departments in multiple faculties […] will challenge traditional descriptions of teaching duties in work-load documents” (16).
teach or co-teach in another unit” (WN 7).

We would underscore this explanation and print it in red. In particular, it needs to be emphasized that the problem does not necessarily lie in the “traditional departmental structures,” or in “the silos of Queen’s faculties and departments” in themselves, but rather in the structure of budgetary allocation that encourages units to husband resources that sustain their core activities, “particularly when resources are scarce.” To recognize this problem is not the same as finding the remedy, but it is important to recognize the distinction if we are to avoid throwing out the academic-discipline babies with the financial-accounting bathwater.

For, as many studies emphasize, disciplines are not the enemies but the complements—one might say the disciplinary parents—of interdisciplinarity. “The very idea of interdisciplinarity can only be understood in a disciplinary context,” writes Moran (ix). “Interdisciplinarity and specialization are parallel, mutually reinforcing strategies,” writes Klein; “The relationship between disciplinarity and interdisciplinarity is not a paradox but a productive tension characterized by complexity and hybridity.” “[I]nterdisciplinarity,” writes DeZure, “is not a rejection of the disciplines. It is firmly rooted in them but offers a corrective to the dominance of disciplinary ways of knowing and specialization. […] we need the depth and focus of disciplinary ways of knowing, but we also need interdisciplinarity to broaden the context and establish links to other ways of constructing knowledge. It is this dialectic between analysis and synthesis that provides the creative tension from which we will all benefit in a world in which crossing intellectual boundaries is increasingly the norm.” For these reasons, our objective at Queen’s should be to promote interdisciplinarity (however this may be understood) while and by fostering the disciplines they “inter.”

In practical terms, this means that Queen’s might do well in this area by building upon strengths it has, and that its innovation should be less a matter of dissolving or amalgamating disciplinary departments than of sending more emissaries (both students and faculty) between them. What if two departments traded a few faculty, as ball teams do players, for a year or two? Or what if Queen’s financial accounting found ways to share resources more flexibly among its departments, so they did not have financial motives to guard core courses against students from other units? (see also note [14]). In many such cases it is not just interdisciplinarity that suffers: when commerce students cannot register for the history or philosophy courses that interest them, there is a loss in cultural “rounding” as well. A small reform that might enhance interdepartmental mixing would be to assign offices more randomly, rather than put all English professors in one hall, Biologists in another: what else might develop if they were all mixed up and English talked in the hallways with Biology? Another remedy may lie in grading relief for

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13 Woolf, WN 7.
14 Environmental Studies, Unit Response, p. 1 (as quoted above). It should be noted that this financial problem can only be exacerbated by the University’s recent shift in accounting by which faculty salaries are lined out to the Faculty rather than University accounts.
15 Julie Thompson Klein, 2000, p. 7; qtd. Orr 46.
16 DeZure 2.
students who would like to venture into far-flung disciplines but fear for their averages: what if they were allowed one or two pass-fail electives outside of their concentrations, or if their lowest mark in an outside course could be converted to pass-fail?  

The dynamic, “mutually reinforcing” relationship between disciplinarity and interdisciplinarity relates also to the doubts expressed by some as to whether interdisciplinarity can be legislated from above. The Academic Writing Team cautions against seeking to achieve interdisciplinarity “by creating an administrative structure in which to house it” (4.3, p. 24). Noting that interdisciplinary areas such as “law and economics” have evolved of their own accord, a professor of Economics advises: “The attempt . . . to tilt research in an interdisciplinary direction would be a serious mistake. My point is not that the number and boundaries of disciplines are fixed forever, but that change is a natural process within the academic environment and that a centrally-administered eugenics of disciplines would be counter-productive.”  

An Art professor offers a similar account:

Disciplines such as the History and Philosophy of Science and Technology at the University of Toronto (originally a graduate institute but now an undergraduate programme as well) emerged as a result of students and scholars in the Sciences and Medicine becoming interested in History and Philosophy, and vice versa. A similar, but more recent case is the establishment of programmes in Environmental Studies from a philosophical and humanistic perspective. A number of students in Engineering become interested in pursuing architecture at the graduate level. Some are now enrolling in dual degrees, such as Engineering and Art History, to prepare for the M. Arch. . . .

There is a fit between these accounts of interdisciplinary development and DeZure’s view that it “often begins with a problem . . . that cannot be satisfactorily addressed using single disciplinary approaches.” Interdisciplinary ventures generally grow out of the disciplines in both senses of that phrase. If these accounts are correct, the university’s ideal role is not to order interdisciplinarity from above but to provide the conditions in which it can emerge from below. One of these conditions is the health of disciplines, and another is the freedom of both faculty and students to move between them.

Thus “interdisciplinarity” in the least precise sense of the term—as “flexibility” or disciplinary variety—appears to be no less important than is interdisciplinarity in the more rigorous sense, since one produces the other. In this connection, the Queen’s dual degrees—dual majors, major-minors, and medials alike—are all of value. The Queen’s medials, which some have advised eliminating on the grounds that it is anomalous,

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17 The allowance of two pass-fail credits was recommended for similar reasons by the Curriculum Review Working Group in its Draft Report of September 2000; see Recommendation 4, pp. 8-9.
19 Cathleen Hoeniger, response to Pillar II, 7 April 2011.
20 [something on research study groups at Queen’s? See ARC reports to Senate, 2004-05, 2005-06; I can’t seem to find a more current listing of such groups]
21 See, for instance, comments on Pillar II for March 22.
particularly attractive, since medical students advance to upper-level courses in both of their concentrations while still finding room for five credits in still other areas. This is a place where Queen’s should appreciate the strength in its distinctness rather than seek uniformity with other systems.

But if the mere experience of multiple disciplines is good, particularly for undergraduates, there is also a need, particularly for graduate students and researchers, for the more rigorous interdisciplinarity that integrates diverse disciplinary methods and perspectives. A graduate student, Andrea, expresses this need in response to Pillar II:

graduate students . . . experience interdisciplinarity in ways other than through course work. For instance, grad students may choose co-supervisors from different fields or may work with a research project that—as is increasingly common—spans several disciplines. These situations are easy to market as beneficial, innovative, and in line with dominant “progress” discourses; however, such endorsements obscure the seemingly irresolvable conflicts that can arise when attempting to work with divergent epistemological frameworks and/or methodological paradigms. As far as I am aware, very little research addresses these complications, and researchers in interdisciplinary teams are left to make compromises that can jeopardize the value of their work. If the university is going to tout interdisciplinarity as an ideal, then I would like to see some dedicated resources developed to help students and faculty navigate this largely unexplored terrain. I am suggesting rigorous engagement with this issue, not tokenistic and shallow advice. Perhaps the Centre for Teaching and Learning could be tasked with undertaking such a project. The bottom line is that it is irresponsible to encourage graduate students to engage in activities for which they lack the tools needed to pursue their research with integrity. [10 April 2011]

It is here that DeZure’s distinctions between interdisciplinarity and other metadisciplinarities comes into play. The need for students to learn “to function within a number of knowledge frameworks” (IF 24) is real, but if mere multidisciplinarity is important for the development of proper interdisciplinarity, it is also distinct from it. Queen’s must take care to promote disciplinarity and multidisciplinarity while also taking measures such as this student suggests to ensure that truly interdisciplinary efforts receive the guidance and support they require.24

Despite Queen’s longstanding verbal support for interdisciplinarity, some faculty who have worked hard to advance it report that in reality, “students and faculty want specialization for credentials […] There is not a lot of payoff within the academic community for interdisciplinary work, whether in respect or in money—so students learn

23 See Comments on Pillar II by David Parker, Mar. 24; Mark Jones, Mar. 27; Cathleen Hoeniger, April 7. The comments by Parker and Jones suggest that Queen’s medial is, in terms of contact hours, a rough equivalent of a dual major in the U.S.

24 Andrea suggests that the CTL could help with this problem; in a separate discussion, Doug Babington suggests a role for the Learning Commons (Town Hall on Disciplinarity and Interdisciplinarity, 11 April 2011). The Library’s online “Research by Subject” pages, which offer terrific guidance to many academic specializations, would do well to include a page dedicated to interdisciplinary approaches.
to want disciplinarity. Most problems are global but there are few forums in which to discuss them.” Principal Woolf himself voices a similar perception: “It is hard to synchronize undergraduate and graduate interdisciplinary programs with academic job markets that remain, for the most part, driven by traditional departmental structures” (WN 7). As both of these comments indicate, the problem lies partly in the way knowledge and inquiry are structured outside of Queen’s, and partly in a conservatism inherent in student demand. Among the more difficult balances the academy must learn to strike is the balance between supporting modes of research and education that respond to the existing social context and have relatively assured “payoffs,” and truly fostering renewal. If the university itself cannot impose new approaches and methods from above, it is crucial that it support and promote them where they have begun to occur from below. At the very least, there needs to be a concerted effort to remove the barriers, discussed above, that have made extra-disciplinary sampling, cross-listing, and team-teaching difficult. But beyond that, the University can and should challenge or even gently pressure students to venture somewhat beyond the bounds of a safe, comfortable, or remunerative program.

It is with this in mind that the APTF has discussed the possibilities of introducing students to the issues of disciplinarity and interdisciplinarity head-on and early, via a core requirement for a (loosely speaking) interdisciplinary half-year course in year 1 or 2—a team-taught course that would bring two disciplines to bear on a single theme or problem, such as environment, global warming, cultural diversity, water, war, diet, or exploration. They could all be “myth and demystification” courses, teaching scholarly methods by emphasizing the gaps between popular conceptions and critical knowledge. But by bringing the two approaches together on one subject and in one classroom, they would also emphasize the limits of particular disciplinary approaches. Our consultations have elicited cautious interest in such a proposal, with concerns ranging from resources (how can one even imagine mounting such a course given the present constraints? or wouldn’t the resources devoted to this detract from disciplinary content we already lack the time and resources to cover?) to timing (wouldn’t it be better to teach such a course in year 2, once students have had time to learn about some disciplines through their first-year intros?). [to be continued]

25 Town Hall on Disciplinarity and Interdisciplinarity, 11 April 2011.