

The Center for Cognitive Sciences at the Ohio State University

A Review for the Office of Research and the Council on Academic Affairs

February 18, 2010

Introduction

The University Research Committee and the Council on Academic Affairs charged a committee to review the Center for Cognitive Science at the Ohio State University. The Committee members were Professor Richard K. Herrmann (Political Science), Professor Shari Speer (Linguistics), Professor Brent Sohngen (Agricultural, Environmental, and Development Economics), and Mr. Ben Reinke (student member of URC). The Committee asked the Center's director Vladimir Sloutsky to produce a report outlining the Center's mission, background, and place on the national scene, as well as its budget, activities, and faculty participants. The self-report also described the Center's accomplishments and problems. Professor Sloutsky delivered the report endorsed by the Center's executive committee on September 23, 2009. It is attached as appendix 1.

Upon receipt of the Center's report, the review committee identified a set of faculty and administrators who have responsibilities and expertise relevant to the Center. It interviewed nearly two dozen of these in the autumn quarter 2009. Members of the committee spoke with the Dean of the College of Arts and Sciences, the Chairs of the Departments of Computer Science, Linguistics, and Psychology, and faculty colleagues at the senior level in all three of these departments as well as several junior colleagues in Linguistics, and Psychology. The committee also spoke with colleagues who have had a portion of their salary paid by the Center and those who have not and one colleague who had left Ohio State but was still active in the field nationally.

Because the history of the Center is spelled out in the self report and there was an external review in 2003 which is included with that report, this report will concentrate on the state of affairs as seen by the people that were interviewed. Rather than trying to describe all that has transpired in activities, oversight, and funding in the past, this report will concentrate on what is perceived as needed in these areas in the future and make recommendations accordingly. It proceeds in three parts: 1) the perceived need for the Center, 2) how well it is fulfilling the perceived need, and 3) what the Committee recommends regarding future steps.

Part 1: Is there a perceived need for a Center for Cognitive Sciences?

The current Center defines its mission clearly. It is to bring together faculty from multiple disciplines that focus on the theoretical experimental and computational study of the human mind. The Center aims to foster interdisciplinary collaboration as colleagues come to know one another and find common interest and complementary expertise. Nearly everyone interviewed agreed that this sort of mission needs to be accomplished at Ohio State and that a center could serve as a valuable catalyst accelerating cross-disciplinary cooperation in an environment organized around departments. Most of those interviewed felt it would be odd if Ohio State did not have such a center given the national prominence of cognitive science and cognitive neuro-science, and the distinguished faculty members working in these areas at Ohio State.

There is fairly wide-spread agreement about what was needed from the Center at Ohio State. Colleagues perceived the need for a unit that organized cross-disciplinary opportunities, fostered cross-department collaboration, and helped to enhance the reputation of Ohio State in the areas related to Cognitive Sciences. Many felt that the talent level at Ohio State is high and many faculty members have strong individual reputations but that too few people outside Ohio State recognize that all of these scholars are at Ohio State. In other words, the decentralized nature of life at Ohio State leads to a situation in which the overall institutional reputation for expertise in this field seems to be less than the sum of its parts. Providing a unified presentation of the talent across disciplines at Ohio State was a need commonly expressed. Colleagues felt having a center fulfilling that function would not only build collective reputation but could add to the individual reputation of scholars as they published in cognate fields. There also was a commonly expressed hope that a center could enhance the inter-disciplinary character of graduate education at Ohio State and promote cross-disciplinary networks among students.

Most colleagues saw the need for the organizational legwork a center can provide. They valued the outside speakers the Center has attracted and Cogfest and poster sessions that enlivened intellectual life and introduced them to colleagues in different departments. One Chair felt that if the Center did not play this organizational role, he would need to hire someone else to do it. Other chairs were not so sure what the Center did and one thought that while the need might be crucial, faculty were finding other ways to make cross-disciplinary networks work. A third Chair saw little need for the Center except to pay for the salary of colleagues it helped to hire. The mix of views evident among chairs was less evident among faculty colleagues who nearly all felt the role a center could play was crucial in connecting to colleagues and graduate students in cognate fields. One especially common perceived need was to have a more thoroughgoing integration of graduate education across the most relevant fields. There was a general recognition that the Center as a research rather than a teaching unit was limited in what it could do to contribute to graduate education, but the desire for much more cross-disciplinary graduate training was unmistakable.

Although several colleagues saw the need to combine cognitive science and neuro science more effectively at Ohio State, plenty still saw the importance of the computational and information processing aspects of cognitive science as traditionally understood. Relevant departments gave priority in hiring to cognitive neuro-psychology and computational psycholinguistics suggesting the focus of the Center may need to expand somewhat but that the interest in the field was still high and that a center could be useful.

Part 2: Is the current Center fulfilling that need?

The Center has stimulated cross-disciplinary collaboration, organized high quality events such as CogFest, and has been associated with high quality scholarship. It has met the needs for some faculty in all three of the most relevant departments and these colleagues feel the Center has made a valuable contribution to their research, intellectual networks, and scholarly reputations. Some felt it also added to their ability to attract external support. A majority of colleagues who feel this way have been at Ohio State for some time and could be considered the core faculty associated with the Center. In general, colleagues who have come more recently or have not been part of the core group at the Center are not convinced the Center is meeting the need they see. They do not feel there are enough activities underway, anything close to the cross-disciplinary interaction they were used to at other institutions, and too little communication about what the Center is doing and what opportunities are available for them through the Center. This group of colleagues who might represent the future for the Center thought the visibility of the Center was fairly low and were not sure the Center was interested in incorporating new people and reaching out beyond the inner-core already identified with the Center.

Chairs of two of the most relevant departments knew very little about what the Center was doing and were hard pressed to identify anything they would miss if it went away. In one case this was not because they thought a center was not needed, to the contrary they thought a center was crucial, but because whatever the current Center was doing it was not addressing the needs they saw. The sense conveyed by those who felt distant from the Center was that the Center tended to revolve around the research of the Director and an inner-core and to coordinate more closely with the Department of Psychology than other departments. At the same time, there were other groups forming independent of the Center, like the Buckeye Language Network involving roughly 60 colleagues, which might benefit from support from a center.

Although no one doubted the high quality of the research done by members of the Center and the productivity of the people involved with it, there was fairly wide-spread sentiment that the Center was not adequately integrated into the daily academic enterprise. Most felt it did not compare favorably with centers at Indiana, Illinois, and elsewhere that were more clearly connected to the pedagogic mission as well as the research enterprise. These evaluations never seemed to rest on any criticism of the work the Center was doing. Instead, they emphasized how

much more was needed to compete nationally and to have at Ohio State the sort of environment that exists at other leading universities to facilitate Cognitive Science with its inherently multi-disciplinary character. With so much faculty talent at Ohio State, most colleagues felt it was unfortunate the current Center could not produce the sort of coherent picture of the opportunities at Ohio State that would make the University's reputation in this field equal to the sums of the parts or even more. There was less agreement about why this was the case and what should be done about it. Several themes were common, however.

Part 3: What to do?

The committee heard numerous ideas about what the Center might do differently including: sponsoring more activities, communicating more actively about the opportunities available through the Center, providing more money to research projects, raising more money from external sources, and playing a bigger role in fostering cross-disciplinary faculty and graduate student collaboration. All the ideas seemed well intentioned and perhaps useful but many were the sort of programmatic suggestions that need to be managed on a continuing basis as annual priorities and budgets are set. For instance, what priority to put on salary support for specific faculty (perhaps in an effort to attract them to Ohio State) compared to the priority put on grant money available to colleagues is the sort of decision that needs annual attention. Rather than try to determine what Center leadership needs to decide, this report will concentrate on five recommendations that speak to broader questions related to the process of decision-making, the mission and the oversight of the Center. The first is related to communication and inclusion, the second to transparency and oversight, the third to leadership, and the last two to the Center's mission and reporting line.

- 1) **Increase the communication about what the Center is doing and develop strategies for including new colleagues into the Center's network.** The Center has been a valuable asset for a group of colleagues who came to Ohio State some time ago. It continues to be important to them. It needs, however, to insure that it plays a comparable role in the careers of newer colleagues who will be the future of the field at Ohio State. More needs to be done to communicate what the Center is doing and what opportunities are available to a broader set of colleagues. Given that we heard many colleagues mention the importance that having a Center was in their decisions to come to Ohio State (due to their experiences with centers of the same name elsewhere), enhancing communication could in the long run help departments hire key faculty who will participate in the center.
- 2) **Strengthen oversight and increase the transparency of the budget.** Too few colleagues, including those on the Center's internal executive committee, have a clear sense of the Center's financial situation, the priorities in its budget, and the process by which decisions are made. Moreover, almost none of them have any

sense of how the Office of Research determines the Center's budget, reviews and evaluates its leadership, and coordinates with academic administrators in the most relevant departments. The lack of transparency on these counts appears to contribute to a sense the Center is run by the director alone, and that decision-making is not open to a broader constituency. It also seems to fuel a sense that the Office of Research is not interested in either what the Center does or in the assessment of its activities by faculty colleagues.

The Center has an executive committee but it does not connect the Center adequately to the key academic administrators and units that shape its prospects for success. What appears to be needed is an Academic Oversight Committee whose members are appointed by the Vice President of Research or whatever other administrative leader the director of the Center would report to in the future. This Oversight Committee should be comprised of the deans and chairs plus select senior faculty from the departments and colleges most relevant to the Center's academic mission. This Committee of eight or nine people should meet at least twice a year to discuss and approve the Center's budget and to review at the end of the fiscal year the expenditures the Center made. This would assure cross-disciplinary input into the decisional process, tie the Center closer to the most relevant units, and produce a budget that would identify clearly for everyone what the Center is doing. It would also establish parameters for what was possible and hopefully reduce some of the unrealistic expectations that are bred by lack of information and unfamiliarity with budget details.

- 3) **Increase Center leadership to a fifty percent appointment.** The desire to see more activities and communication from the Center is not likely to be met when a director has a relatively small portion of their time paid for by the Center, especially if the director is going to remain active in research. The 2003 external report advised increasing the amount of time the director has to attend to Center affairs. Then the issue was appointing a director who was not simultaneously a department chair. Today, even with a director without other administrative responsibilities the need for more of the director's time is still apparent. It is possible that the additional tasks that need to be done could be accomplished via an associate director instead of a 50% director. The recommendation here is that to meet the perceived needs and aspirations more from leadership will be expected and more support will needed to make that expectation realistic.

These first three recommendations may go some distance in managing problems of perception. They may also lead to some redistribution of the Center's resources to different priorities. They will not, however, assure that the Center becomes any more productive or more successful in generating more resources and doing more things. The Center is already

productive and the source of collaborations leading to academic products and research grants. Including different people is likely to affect priorities but may not change the fundamental problems the Center faces which emanate from resource constraints and its distance from the core academic units on which it depends for human talent. These might be best addressed by reconsidering both the mission of the Center and its reporting line.

- 4) **Connect the Center more directly to the pedagogic mission in the cognitive sciences.** Numerous colleagues felt that one difference between the Cognitive Sciences at Ohio State and even stronger programs at other universities is that at those other schools there is more integration and collaboration in the training of graduate students across disciplines. In these other programs, more graduate students reportedly came to know one another and work together across departments. This was a development they hoped the Cognitive Science Center at Ohio State could contribute to. They realized, however, this pedagogic task fell outside the current mission of the Center. Playing a bigger role in the pedagogic mission would probably help the Center to be seen as more integral to academic life but would also probably require a change in the Center's reporting line.
- 5) **Locate the Center in the College of Arts and Sciences.** The Center is not likely to become self-sufficient. No one interviewed felt the Center could generate enough external money to pay for itself. As it is, it has trouble capturing indirect costs on grants because most colleagues run their grants through departments not the Center. Reportedly, the inter-departmental bickering over the division of the potential spoils was so intense in the Center's one run at an IGERT that nobody was anxious to try again. Even if that friction was eased, it seems unlikely that grant money would be adequate to fund the Center. Perhaps if the Center performed a clinical service or did contract work, it could generate sufficient revenues to sustain itself. It does not perform a clinical service, however, and pursuing contract research would divert attention from cutting-edge scholarship and more likely diminish academic reputation than enhance it. Unless a large endowment is on the horizon, it seems best to recognize that the Center will not become financially self-sufficient much less a direct source of revenue.

The contribution the Center is best positioned to make appears to be in the realm of producing scholarship, not money. It seems likely the chairs and deans with academic responsibility in the relevant fields would be in the best position to evaluate the importance of this academic contribution. Moreover, if the Center is to play a role in the pedagogic enterprise and help to coordinate cross-disciplinary

education, as many colleagues believe is needed, then connecting it directly to the administrative structures responsible for that training makes sense.

Obviously, not all the units relevant to Cognitive Science are in the Arts and Sciences. The Department of Computer Science is critical and there would need to be cooperation with the College of Engineering. There may be some concern that the College of Arts and Sciences would monopolize the resources of the Center but the risk of that seems less than the risk of having the Center remain distant from all of the academic units it relies on. If the College of Arts and Sciences wants a strong Center of Cognitive Sciences it will not be able to achieve that without Computer Sciences. Moreover, if the college of Arts and Sciences does not want a center of this type, it is unclear why Ohio State would invest in this one any further.

The resources the University has invested to this point come from the Office of Research. Some of these are used to pay the salary of faculty members in both the Colleges of Arts and Sciences and Engineering. A change in the reporting line would obviously require decisions on how these obligations are met and whether monies now in the Office of Research would follow the Center. Presumably these decisions could be worked out by the Provost, the Vice President for Research, and the relevant deans.