Don Quixote and Chaos Theory

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1. Abstract and Rationale:

I wrote this brief description of Spanish 4663: **Don Quixote de la Mancha** for my students at the end of the course (27 November 2007) as I wanted them to have a post-course road map and record of where we had been and of some of the intellectual sites and beauty spots we had visited en route. During the course we first invented, and then applied, **Chaos Theory** to our teaching. This was for me a delightful innovation, and some of the photos we took and memories we built are set out below. Note, however, that **Chaos Theory** is still under construction. What appears below is the first step in making the theory coherent. Note too, that I have rewritten this paper, in much more formal fashion, in response to the appraisers who read and commentated on my initial article. Out of curiosity, I am offering the original paper, the commentaries and my responses, and then the revised paper.

Key Words:

Don Quixote, Chaos Theory, teaching, learning, dialogue, students.

2. Part One: The Original Paper

We have been on a long journey together, a 1000 page journey. We have witnessed the lives of many new literary friends and it may well be that, like our characters, we now have some trouble distinguishing truth from fiction, illusion from reality, inns from castles (Fluffy from a normal dog), innocent men from galley slaves (Dumbledore from the Devil), wineskins from giants (a Norwegian Blue from Danish Blue), Plato's Cave from the Cave of Montesinos (Platform 9 3/4s from the genuine Platform 10), and the world of reality from the world of the evil genius (Wycliffe College, for example, from Hogwarts School). However, hopefully, we are now able, in our own lives, to make these distinctions and to differentiate good from bad, life from death, the real world from the literary world, and genuine genius from the evil genius who sometimes tries to rule our lives.

Our journey has taken us — whether we remember them all, or not, -- through many literary, cultural, and social experiences and / or theories, among them phenomenology (the organization and study of textual facts), hermeneutics (the interpretation of such facts), the intentional fallacy, the pathetic fallacy, *le roman à clef*, the Italianate novel, the development of the short story in Spain, epic poetry ("también la épica puede escribirse en prosa", DQ, 1, 47), novels of chivalry, Courtly Love, The Religion of Love, various theories of dramatic unity, Classicism versus Romanticism, Renaissance and Baroque. We have also discussed many aspects of the text as object and the text as living creation, touching upon the structures of narrative, theatre, and poetry, while discussing, however briefly, the nature of *cultismo* and *conceptismo* and the function of language — correction, hyper-correction, archaisms, and neologisms, -- both in an oral and in a literary setting.

Other thoughts that have come to us in our journey have included the contrast between poetry and history, and between poetry and prose, the function and construction of metaphor, narrative voice(s), cultural, sociological, and literary history, and religion (especially the Protestantism and Catholicism of the Reformation and the Counter-Reformation). We have dissected metaphor, metatheatre, and metareality; we have examined orality and literacy; we have opened our minds to real and fictitious heroes; we have studied meaning and double meaning, verbal and visual symbols, madness and sanity, dreams and illusions, in the context of Freud, Jung, and Adler; and this is only the tip of the iceberg, because we have accomplished more, so much more, for we have seen Cervantes's text as a living creation in which ideas change as they are wrestled with, everything being as restless as the sea, nothing standing still, while thoughts are dimly grasped, then illuminated, then developed, worked and reworked, the tiny seed of creativity growing before our eyes swiftly into the tree of multiple knowledges.

We have done this in both a structured and an unstructured fashion. Structure and discipline have come from the necessity of reading 1000 pages in 12 weeks at a rate of two chapters a day, five days a week. This has been the backbone of the course: being ready to discuss as a result of reading accomplished and understood. Structure and discipline have also come from the necessity of writing regular position papers, with their analyses, commentaries and corrections, and with each position paper leading by slow steps – thinking, re-thinking, defining, structuring and sharpening arguments and examples, -- to the final academic paper, the result of fourteen weeks of reading, discussion, and research.

However, we have at no stage thrown a grid over the text and ticked little boxes marked "a **Marxist** interpretation of *Don Quixote* – now let's talk about **Marxism** and then apply it to Cervantes" or "a **feminist** interpretation of Cervantes's works – now let's study **feminism** and then apply it to *Don Quixote*." In fact, instead of using what I would describe as a top down theory, *first understand the critical method and then examine the text*, we have used a bottom up theory in which the text has taken precedence. As we have read the text, questions have arisen, at first set by me, as leader, then gradually put forward by you, the students, initially as followers, and then gradually and almost imperceptibly, by yourselves as leaders.

Towards the end of the course, when I played the role of the evil genius who deceives, I announced that I had been unable to complete my readings for that week. Everybody was understanding and nobody complained. First one of you, then two of you stepped forward, and before you all realized what was happening, half the class was leading the other half of the class and the discussion was as ripe and as fruitful as always. In fact, you were a joy to behold, and one or two of you even asked me, the silent teacher, if I had an opinion on one or two of the ideas that the text was generating for you. Oh the joys of metatheatre! But the point was made: in the course of the course, you had become independent learners who had full confidence in themselves and who were, whether you realized it or not, capable of being totally independent of me. I hope you remember that class and that experience and carry it forward into the rest of your lives.

I called the teaching theory that we were using **Chaos Theory**. It is probably more recognizable as **the Theory of the Teachable Moment**. In normal teaching, the teacher describes the theory and shows how it must be applied to the text (top down, usually). In **Chaos Theory**, or the **Teachable Moment**, the text generates both questions and theory (bottom up) and it is the job of the teacher to sharpen the questions and guide the students (I would rather think of you as seekers or searchers than as students!) in the direction they are already moving. The **Teachable Moment**, then, occurs (and re-occurs) for each one of you at different moments in time. It is important to recognize this because in the **Teachable Moment Theory**, your questions are answered (a) when you ask them and (b) when you are ready to ask them. In other words, both **Chaos Theory** and the **Teachable Moment Theory** are controlled by you as students and seekers, rather than by me as teacher.

To a certain extent, this seems parallel to the **Socratic Method**. However, in the traditional **Socratic Method**, there is usually a single or singular truth which the seeker receives as enlightenment or revelation from the chosen one who has already grasped that truth and is now ready to reveal it to the few who are now ready to receive that truth and who thus become "also-chosen". In **Chaos Theory**, on the other hand, there are, as we have seen, multiple truths, and multiple responses. In **Chaos Theory** there are no chosen ones, nor are there chosen-ones-in-waiting so to speak, and this too ties into **Reception Theory** and **Reader Response Theory**.

Quite simply, we do not all need to see the same thing in the same way. Nor do we have to decide whether it's a *bacía / basin* or a *yelmo / helmet* when really, it's neither: it's a *baciyelmo / basinhelm*! The neologism (the new word, *baciyelmo / basinhelm*, invented by Cervantes), refers to the duality of objects, not to their singularity, nor to the existence of a distant (Neo) Platonic ideal that we have only to glimpse, just to change our lives forever. For, as Don Quixote himself writes: "amicus Plato, sed magis amica veritas / Plato is a good friend, but a better friend is the truth" (DQ, II, 51), an adage which seems to challenge the authority of Plato, who is not always right, for our universe is, after all, heliocentric and not terracentric. This adage is, incidentally, borrowed from those of Erasmus, whose work was banned in Spain by the censors of the Spanish Inquisition.

In addition, we have to remember that not all caves are the same, for it's dark in Montesinos' Cave (*DQ*, II, 22-23), and even darker in Sancho's *honda y escurísima sima* (*DQ*, II, 55) in both of which time does funny things, the brain invents and imagines more than it remembers, and early dreams turn often into later nightmares. And no, our world is not a perfect one, nor is it a simple one, composed of blacks and whites; rather ours is a complex, complicated world, with multiple shades of scarcely distinguishable grey, and moreover, it's getting dark as we view it, and perhaps we have mislaid our glasses.

All of this, of course, attacks in principle the static world view, supported by the church, amongst others, at the time of Cervantes: one object, one name, one function, one ideal, and all of this brought to you through the mediation of the village priest, of the barber, of Sansón Carrasco, of Socrates, of Plato, of the teachers of singularity. These constant attacks on the singularity of meaning and, by extension, on the roots of authority, make *Don Quixote* a very dangerous book. Why is *Don Quixote* dangerous? He

(the man) and it (the book) are dangerous because they challenge authority. That is why Don Quixote must be mad when he sets out on his adventures and must become sane, and hence repent his folly on his deathbed where he must bow to that authority; for in the world of the Spanish Inquisition, authority cannot be challenged, even by a madman, and the challenge go unpunished.

And now the course is over and you must leave the classroom and return to real life. But be very careful as you look around you: there are windmills and giants everywhere and some inns are indeed castles while other castles are simply inns in disguise. Appearances do indeed deceive: some things, like the Windmills, can have a dual function, for, as the characters observe in *Cyrano de Bergerac*: "Les moulins de vent avec leurs grands bras de toile, ou vous jèttent dans la boue ..." "... ou vous lancent aux étoiles."

As faithful followers of the noble knight it is now your task to pick up the torch that he has lit, to get into your motorized *Rocinantes*, and to charge courageously into the dark, filled with hope and with whatever faith you wish, but meaningfully prepared for whatever challenges are waiting there for you. It only remains for me to say, in closure, that I hope you have enjoyed, as much as I have, the journey we have undertaken together. And now I must again thank you for sharing this journey with me and for allowing me to share this journey with you. I will end with some words, slightly changed, from Cervantes: "*Puesto ya el pie en el estribo, con las ansias de la navidad a cuestas, estos renglones os escribo.*" Your well being -- the well being of each and every one of you -- will ever be in my thoughts.

3. Part Two: The Appraisers' Comments and My Response

The original article that I wrote for my students in the form of an open letter to them is available online at http://www.stthomasu.ca/~rgmoore/Scholteach/DQ&CT.htm I rewrote this article, in more formal fashion, in light of the original comments made by the two anonymous appraisers. I now attach their comments, with my own additional comments.

First Appraiser:

The paper is definitely interesting as a teaser, to promote reflection around this idea of Chaos as a teaching/learning method. Nevertheless, in order to deepen that reflection, I would have loved to have a second paper, from the same author, giving us the syllabus of that Spanish 4663, course, detailing the method and explaining us what the students had learned through the course. If learning occurring in that course is somehow different, what is it exactly? What could be considered as learning evidences in the position paper the students had to hand in? Are those learning evidences deeper, or more diversified than what we find amongst students in a regular course? Can the added value of the Chaos as a learning method be approached, and even perhaps be measured, and in what terms? Could some students witness?

Comments:

The basic syllabus of the course is outlined in the rewritten paper. I am never sure what students learn in a course. In spite of this statement, certain things did seem to emerge:

A deep and lasting interest in the reading, research, and writing process on the part of the students emerged. This was underlined for me by the number of students who said that their understanding of the three processes grew as the course progressed. In particular, every student enrolled in the class swore that they would never produce another "all-nighter essay" again in their lives.

If learning occurring in that course is somehow different, what is it exactly? Somehow, the process of taking charge of the class was transferred from the teacher (authority) to the students and the text. I am not really sure just how that happened. Student interest and involvement was total. As a result, the notion of learning was transformed. I am not sure that it was one single factor; **Chaos Theory**, self-grading, the open discussions, the self-selection of theme, the effort of concentrating on a single topic over twelve weeks, the parallel texts that gave us all a common background, all of these factors seem to have played a part in changing totally the nature of learning.

What could be considered as learning evidences in the position paper the students had to hand in? The changing nature of the student text was exemplified in the obvious improvements that took place from essay to essay. Pages 1-5 were rewritten, for example, on at least one occasion (pp. 1-10), and often on two or more occasions as the nature of the unity of the written text became more obvious. These improvements were evident to the students and many commented on how much they could see themselves improving.

Are those learning evidences deeper, or more diversified than what we find amongst students in a regular course? I have in the past marked essays and see students look at the grade and throw the essays in the garbage on the way out. They call this process filing the paper. Again, I have left graded essays for the students and have been distressed to find that these essays have never been collected and the careful comments have gone unread. Clearly, given the evidence I have offered above this did not happen in this case and the improvements can be measured.

Can the added value of the Chaos as a learning method be approached, and even perhaps be measured, and in what terms? This is a more difficult question. Since the majority of the class was a pretty chaotic oral experience, I think it would be very difficult to measure. I also think, looking back, that the group was exceptional and that this serendipity was pretty unique, for me at least. I would certainly envy anyone who regularly taught under these conditions. For me, they were very special.

Could some students witness? I have the course comments and the written evaluations and they too were special. So I do have student witnesses. I also have some students who have gone back to the research done in this class and who have reworked it again.

Second Appraiser:

Any lack of confidence I have in rating this stems from not being sure what the purpose of it is in the context of the journal. If I read it as an example of a strategy to consolidate student learning through prompting reflection letting them see how far they've come, then I think it's an interesting strategy. It also works as a personal reflection of how the instructor managed learning in a course. If I read it as a how-to guide for applying the author's version of Chaos Theory, I'm less impressed. Qualms I have about acceptance might be addressed by making the opening statement clearer; we know what the author wanted to accomplish in writing for his students, it is less clear what his or her aim is in submitting it for publication.

However, properly situated as a model for recapping a course, the paper does work. It is interesting in style and tone, it indicates high expectations of his students' background knowledge, and may help students contextualize and extend what they've learned. As a teacher-centered document describing a learner-centered class, it could prompt intriguing discussions; it would be beneficial to have the students reflect and write up their own journeys, but that is more about the author's pedagogy than the piece here, and he may well have assigned them that task.

Comments:

I really appreciated the comments from the second appraiser. When I wrote the piece, I wrote it chaotically for my students to praise them for a job well done. I did not have a clear aim, other than to say that we had achieved in an unorthodox fashion, via questions and answers, a similar result to the one we would have achieved if we had been learning in the standard, authoritarian lecture driven fashion. However, in reading this second appraisal, I have tried to rationalize what we did and how we did. The result is a working model for **Chaos Theory**. This working model has been born from the rethinking and the rewriting of the initial piece. I must thank both appraisers for pushing me to do just that.

I am very interested in the statement "a personal reflection of how the instructor managed learning in a course" because that's precisely what I didn't do. The students did: and the main difference between this and any other course that I have taught was the student independence of thought and action.

4. Part Three: The Revised paper

In order to understand what I came to call **Chaos Theory in Teaching**, it is first necessary to understand how the regular course on *Don Quixote* was structured. Then it is possible to see how, in this one instance, **Chaos Theory** was discovered and applied.

Let me begin by stating that I do not believe that literature can be *taught*. I believe that we, as teachers, can force students to read books. Then we can question them orally and in writing on their understanding of those books or, more usually, on their understanding of the critical theory that surrounds those books. Usually, especially in my early career, the closer their understanding was to mine and that of my favourite critical theories, the more credit I gave them for following my arguments and modelling

their thought on mine. However, as I developed as a teacher I began questioning this authoritarian method of teaching. I also became fascinated by a new generation that now reads and understands so little of the books that still fascinate me. My students are computer literate. They can scan, surf, multi-task, talk ... but, I ask myself frequently, do they know how to read? The *Don Quixote* course has always been an adventure in bringing reading to my students.

The traditional course is based on a structural reading: one semester, 13 weeks, one week to plan the course, 12 weeks to read the book. There are 126 chapters and if they are read at a rate of two a day, five days a week, for 12 weeks, then the reading process is completed, save for the last six chapters which must be crammed into that last week. This is a disciplined reading method. Set aside one hour a day for reading, and read two chapters during that hour. Stick to the routine until the book is finished. Yes, it is over a thousand pages long, depending on the edition, but it is essential to keep reading.

Assessment has always been more difficult. I have experimented with many forms of assessment for this course including various combinations of several of the following: journal assignments, mid-term examinations, a final paper, two or three short position papers, regular quizzes, short answer questions, surprise tests (to check that the students have actually done the reading), oral examinations, and multiple choice quizzes. I have also taught *Don Quixote* on WebCT using chat-rooms, group conversations, weekly questions and group dialogue and discussion ... I have asked for answers on tape recorders (before the iPod and the digital revolution), I have received them by telephone, I have done oral interviews ... I have gone beyond the written word on the page and I have used film and film comparisons, I have used tape recordings of the text, I have asked for posters and displayed posters in poster competitions, we have written live theatre and quixotic meta-theatre ... I have offered many alternatives, but somehow, I have never really been convinced.

The year I taught **Chaos Theory**, I felt the need to try, yet again, to do something different. We began the class with a series of questions: what do you, as a class, want to get out of this course? What do you want from me? What do you want from this course? The answers surprised me. The students were very clear: they wanted above all to read the text. Most of them had spent six weeks the previous summer with me in Avila, Spain, and knew all about *Don Quixote* and his place in Spanish society. They wanted group discussions in Spanish on the text. And, the killer punch, they wanted to learn how to write a formal academic essay. I emphasize that this was what *they* wanted. My challenge, as a teacher, was to put this into some sort of formal package.

I had not ordered a text for this class. For some time now I have been avoiding the bookstore and inviting students to go online and find their own texts. In the *Don Quixote* course I again invited them to do just that: choose the language in which they wanted to read (English, French, or Spanish) and choose for themselves the text they could afford. The only proviso I made was that they go online to the Cervantes Institute and quote in Spanish from the excellent online edition to be found there. We then discussed the problem posed by the academic paper and I offered a combination of strategies based on the methods I had employed previously. At some point, a voice I can't remember

whose, piped up with: "If we are reading the book in installments, why can't we write the essay in installments?"

And that's what we agreed to do. The academic paper would be a minimum of twenty pages long, excluding notes and bibliography. It would be completed in 4 3 week installments: pages 1-5 (week 3-10%); pages 6-10 (week 6-10%); pages 11-15 (week 9-20%); pages 16-20 (week 12-20%); the completed paper, with annotated bibliography (10%) and endnotes (10%). There would be a further 20% for participation. The academic paper was to be handed in by the first day of examinations and the final paper, if revisions were still necessary, to be handed in at the end of the examination period. One other point: if the paper were to be a genuine academic paper that prepared them for research and graduate school, they had to find their own topics.

The next week, I taught in a familiar fashion: I selected the high points of the first ten chapters; I asked questions; I divided the students into discussion groups; I gave them points to discuss; and I got the usual expected responses from the usual people. I knew something was missing, but I wasn't certain why the fires weren't being lit. For the next two weeks, I continued with this system. During the second and third classes, I was already receiving questions about the essay topics: how do we find a topic? How do we choose a topic? How do we know what to write about? We struggled a bit with this problem, but examples of potential topics were written on the board and the problem was set aside for the time being.

In week 3, I received the first five pages of the academic essays. These first five pages were to consist of an Introduction, the production of a clear thesis sentence, and the development of this thesis sentence into the first five pages of the essay. I asked for the papers in electronic form and they were e-mailed to me. I worked on them in MSWord and added footnotes, end-notes, and comments. I commented on everything: spelling, punctuation, quotes, analysis, topic, thesis sentences. In some cases, the comments were longer than the essays. I printed the essays with the comments and handed them back in the next class. The students searched for their grades, but couldn't find them. I hadn't graded the papers. Instead, I asked the students to read the comments, all the comments, and grade the papers themselves. If, I told them, this is to be a genuine academic paper, you must be your own judge, jury, and executioner. You must also be, I told them, your own investigators, each with his or her own theme, and each of you an expert on the topic about which you have chosen to write.

Chaos Theory was born in week 4. Every student came to class with questions. Sometimes they were related to their own topic. Sometimes they were more general. All were text orientated. Many had questions on the changing meaning of the text. They had obviously exchanged essays, read and re-read the comments, and now were coming to class prepared to do battle. I threw my lecture notes away. The whole class was chaos, delightful chaos, and chaos theory was born. I called it Chaos Theory because I did not know what question was coming next, nor did I know from what angle it would come. Apart from the standard TV shows and videos and films which all had seen, there were two constants: everyone had read and seen the *Harry Potter* series and everyone had and seen read *Lord of the Rings*. These, along with magic and chivalry, and the battle between good and evil, became our constant companions. Each student was reading in a selected field and was rapidly becoming an expert in that field.

The fields themselves were not the usual ones. One student was interested in human rights. Another, a native speaker, was fascinated by the archaic language. Another was intrigued by double meanings. Another loved chivalry and quoted from Arthur and the Norse sagas. Yet another was interested in Cervantes as a proto-feminist. One wanted to compare magic in Harry Potter with the lack of it in *Don Quixote*. Meta-theatre drew some interest, too, as did the traditional themes of madness, reality and illusion.

When the essays arrived at the end of week 6, I could see an immediate transformation. Pages 1-5 had been completely revised in response to the notes and comments and pages 6-10 had been modelled on pages 1-5 and the in-class commentaries and conversations. I gave the essays back in week 7 and the students again graded themselves. Week 9 showed more improvement, as did week 12. Students were now engaged not only in the reading process but also in the writing process. They were reading beyond the text and researching in their areas. When they came to class, they submitted me to various forms of torture, seeking meanings for the most disparate material. Class was chaotic because other than reading the chapters along with them, I could prepare very little.

I kept a record of the grades I would have given the students at each stage and, almost invariably, the grades they gave themselves were lower than mine. In fact, I raised the final grades for everyone, just because I was so pleased with their progress. I lost one student who dropped out early. Other than that, the students who started the course all finished it. When the students evaluated me, they gave me the highest evaluation I have ever received for a course. But the funny thing is, it wasn't me at all, because after week 4, they took control. In fact, towards the end of the course, I played the role of the evil genius who deceives and I announced that I had been unable to complete my readings for that week. Everybody was understanding and nobody complained. First one student, then two students stepped forward, and before I realized what was happening, half the class was leading the other half of the class and the discussion was as ripe and as fruitful as always. In fact, that particular class was a joy to behold, and one or two of the students even asked me, the silent teacher, if I had an opinion on one or two of the ideas that the text was generating: oh the joys of metatheatre! But the point was made: in the course of the course, the class had become independent learners who had full confidence in themselves and who were, whether they realized it or not, capable of reading, writing, and researching totally independent of me. I hope the students remember that class and that experience and carry it forward into the rest of their lives.

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