Psychology 3HH3, Term 2, 2006-2007
Development during Infancy

Meetings: Wednesdays 12:30-1:20 P.M.
Fridays 12:30-2:20
HSc 1A4
Tutorials: Tuesdays 4:30-5:20, BSB B103 and seminar rooms for small
  group meetings (to be announced)

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Readings: Courseware pack Development during Infancy, Psychology 3HH3

Objectives: Psychology 3HH3 concerns perceptual and cognitive development during
  infancy. It assumes that students have a good background in the basics of human
development and that we can build on them to understand the details of development
  during infancy. We will consider how biological constraints and environmental
  influences interact to shape the infant’s brain and behaviour.

Content objectives: that students
  (a) understand the nature of development during infancy and the mechanisms underlying
      the developmental changes.
  (d) derive implications of the material for intervention with normal children and children
      with problems

Skills objectives: that students become (more) skilled at
(b) Reading and critically evaluating published studies of infants
(c) Synthesizing information and using it to mount an argument both orally and in writing
(d) Working effectively both individually and with a group.

Structure

Classes: About half the time, the 2-hour slot on Fridays and the 1-hour class on Wednesdays (plus during a few of the Tuesday tutorial hours—see Schedule) will consist of traditional lectures, supplemented by demonstrations, discussions, and problems to be solved by the whole class. The purpose of the problems and discussion is to encourage you to become actively involved in your learning. Class notes will be posted on Learnlink. Before each class, they will contain an outline of the points to be covered in lecture format; after each class, the notes will be updated to include the conclusions of the problem-based discussions. The rest of the classes will be used for group presentations and for skills-building topics (how to read a paper, how to write effectively, how to give a good oral presentation, etc.).

Learning groups: Each student will work with a learning group of approximately four supervised by one of the teaching assistants. These groups will work together on the class presentation and may also choose to work together as a study group or on the smaller projects that will be assigned from time to time. Collaborating on these projects is meant to promote learning both about the course material and working effectively in a group. It’s also meant to make the learning fun.

Group presentation. Each group will be asked to do a presentation on a key question in the course. In developing the presentation, the group should use the relevant articles in the coursepack as a starting point and then find additional articles in the peer-reviewed literature using the reference sections from the required readings, medline, Psycinfo, and other search tools. Your group is responsible for the lecture on your topic.

The presentation and discussion should last not more than 45 minutes, with no more than 30 minutes devoted to the presentation. It should give an accurate summary of current knowledge and should allow time for thoughtful discussion about the implications of the findings. You should try to make the presentation engaging and get the class involved in the discussion. You may use visual aids, discussion questions, a skit—whatever helps you to present the material in an informative and engaging way. It should also be memorable—because the material may appear on the final exam.

You may decide to take different roles in the group presentation but each group member should participate in its preparation, in the discussion, and in answering questions. Oral presentations will be graded by the instructor, the teaching assistants, and the class based on the content, logical flow, clarity of presentation, and quality of discussion.

After the presentation, each member of the group will be asked to hand in a written evaluation of the contributions of each group member. There will be a form posted on Learnlink for the evaluations. Typically, all group members will receive the same grade, but the instructor will factor-in evidence of unequal contributions as shown by the peer
evaluations, teaching assistant’s assessment, postings on Learnlink, and role in the
discussion. When there is evidence that a student did not pull his or her weight, the
instructor may adjust the presentation mark for that individual.

**Tutorials:** The scheduled tutorial hour on Tuesdays will normally be set aside for groups
to meet to work on their group presentation. Groups are expected to meet in their
assigned spot during this time, so that the teaching assistants and instructor can find them
to monitor progress and offer advice. Groups are also expected to post their work in their
folder on Learnlink for the same reason. Failure to do so will be interpreted as evidence
that the group is not working on the project. Especially if your presentation is early in the
term, you will need to have additional meetings outside classtime in order to be prepared
to teach your class. After the group finishes the class presentation, it is welcome to
continue to meet as a study group, but that is not required.

**Participation in class discussions and preparation of short assignments.** Students are
expected to take part in class discussions. To prepare for this discussion, there will be
occasional short assignments that will be given in class and posted on Learnlink. You
should allocate 1 hour/week for such assignments so that you have enough time to
complete them between the Wednesday and Friday classes or between the Friday and
Wednesday classes. 15% of your grade will be based on participating in class and
completing these assignments, with more marks given if the work is of higher quality.

**Major essay related to group project.** Each student is expected to write an individual
essay related to the topic presented by the group. It can be on a sub-topic or even a
tangent but must be somehow related to the group’s topic. You may talk with classmates
about your ideas, but should write the essay independently. Copying the wording of
others, be it in another student’s paper or a published article, will be considered
plagiarism.

The essay should be 6-8 pages long, not including references, double-spaced. It should
summarize the relevant papers and then go beyond them to provide an analysis and
critique of what is known. It should then relate the information to the overarching
developmental questions about the nature of developmental change (e.g., innate
constraints, experience-expectant, experience-dependent). Your analysis might include
pointing out a weakness in the method used, discussing contradictory findings, describing
methods to test some of the claims made, pointing out an alternative interpretation, noting
weaknesses in the argument etc. The essay is due three weeks after your group
presentation or April 5, whichever is earlier.

The essay will be graded on content, logical flow, original thinking, and style.

**Exam:** There will be an open-book final exam written during the regular examination
period. The questions will require integration across the course material and its
application to practical problems.
**Practice question/small paper:** You will receive a choice of questions of the type that will appear on the final exam (but of smaller scope) and be asked to choose one of the questions and to write a 2 to 3-page paper (typed, double-spaced) answering it. Due dates will be staggered throughout the term, based on the topic. The paper will be graded for content, logical flow, synthesis of the course material, and clarity of style. This paper is intended as a way of practicing for the final exam and hence will be worth only 5% of the final mark.

**Learnlink:** We will use Learnlink as a communication platform outside class time. Through Learnlink you will be able to read announcements about the class, print out lecture notes, indicate what your group is doing so as to receive feedback from the teaching assistants and the instructor, ask for assistance, read and answer sample questions, see what other students are doing, and help each other to learn. In other words, it should allow students to be more in touch with the instructor and with fellow students.

**Summary of Requirements**

Marks will be determined as a weighted average calculated as follows:

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Weightage</th>
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<tbody>
<tr>
<td>Group presentation</td>
<td>20</td>
</tr>
<tr>
<td>Major essay</td>
<td>25</td>
</tr>
<tr>
<td>Participation in class and on Learnlink</td>
<td>15</td>
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<tr>
<td>Answer to practice question</td>
<td>5</td>
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<tr>
<td>Final exam</td>
<td>35</td>
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</tbody>
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Grades will be assigned roughly as follows:

- A+ 90-100; A 85-90; A- 80-84; B+ 77-79; B 73-76; B- 70-72
- C+ 67-69; C 63-66; C- 60-62; D+ 57-59; D 53-56; D- 50-52; F 0-49

I reserve the right (a) to alter the course requirements or their weighting, depending on the course enrollment, availability of teaching assistants, or other practical considerations and (b) to adjust a student’s final grade either up or down in light of special circumstances and/or the student’s overall performance in the course.

“Attention is drawn to the Statement on Academic Ethics and the Senate Resolutions on Academic Dishonesty as found in the Senate Policy Statements distributed at registration and available in the Senate Office. Any student who infringes one of these resolutions will be treated according to the published policy.”
Psychology 3HH3 2005-2006    Tentative Schedule

January 3, 5, 9            Introduction
How to find articles; how to read and critically evaluate an article
Division into groups to begin work on presentations

January 10, 12            Fetal development
Maurer & Maurer, Chapter 2

January 17, 19            Mechanisms of development
Coursepack: Elman et al., Spelke

January 24, 31            Smell and taste
Maurer & Maurer, Chapter 5

January 26                How to give an effective oral presentation
How to improve your writing

February 2, 6 (N.B. Tuesday) Vision
Maurer & Maurer, Chapter 6

February 7                Group presentation 1: face perception
Courseware: Mondloch et al.

February 9                Group presentation 2: facial attractiveness
Courseware: Geldart et al.

Group presentation 3: critical periods for visual development
Courseware: Maurer & Lewis

February 13 (N.B. Tuesday) Hearing
Maurer & Maurer, Chapter 7

February 14               Group presentation 4: music
Courseware: Trainor & Trehub; Hannon & Trehub, 2005

February 16               No class

February 19-24            Midterm recess
February 28  Touch, the vestibular system and motor development
Maurer & Maurer, Chapter 8
Coursepack: Thelen

March 2  **Group presentation 5: massage therapy**
Coursepack: Field

**Group presentation 6: motor experience, motor learning, and cortical development**
Coursepack: Elbert et al.

March 7, 9  Language

March 9  **Group presentation 7: infant-directed speech**
Courseware: Trainor et al.

**Group presentation 8: learning statistics or rules?**
Courseware: Saffron et al.; Marcus et al.

March 13 (N.B. Tuesday)  **Group presentation 9: focal lesions**
Courseware: Bates et al.

March 16  **Group presentation 10: sign language**
Courseware: Coppola & Newport

March 16, 20 (Tuesday), 21,  Concepts
Maurer & Maurer, Chapter 10

March 23  **Group presentation 11: breast milk and intelligence**
Coursepack: Luca et al.; Malloy et al.

**Group presentation 12: infant arithmetic**
Courseware: Wynn; Simon

March 27 (N.B. Tuesday)  **Group presentation 13: innateness and the object concept**
Courseware: Baillargeon, Diamond

March 28, 30  No class

April 4  Review and wrap-up

April Exam Period  Final examination
Group projects

1. Face perception during infancy: are faces special?

2. Infants’ sensitivity to facial attractiveness: biologically based?

3. Critical periods for visual development

4. Infants’ sensitivity to musical structure: is music learned?

5. Effects of massage therapy on infant development

6. The influence of motor experience on motor development and its cortical representation

7. The role of infant-directed speech in development: teaching emotions or language?

8. The nature of infants’ learning: Statistics or rules?


10. Plasticity of language learning: Lessons from sign language

11. The relation between breast milk and intelligence

12. Infant arithmetic: can infants add and subtract?

13. Innateness and the object concept