

Cognitive and Language Development

PSYC-352

Lectures will be twice a week, in [Chernoff Hall, Room 117](#)

Tuesdays 4:00-5:30 PM

Thursdays 2:30-4:00PM

When you have finished reading this syllabus, log onto the course website (OnQ) to check your understanding with a [short quiz](#). If you get 100%, I'll give you a bonus 1% on your final grade in the course! You will be able to retake the quiz as many times as needed to earn that credit.

Teaching Team

Instructor

Tara Karasewich, MSc

E-mail: tk51@queensu.ca

Twitter: [@KarasewichT](https://twitter.com/KarasewichT)

Office hours: Wednesdays 3:00-4:00 PM

I will be holding weekly office hours remotely ([over Teams](#)).

Teaching Assistants

Sylvia Pinheiro, MSc

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Welcome to PSYC-352!

Because we are still facing the threat of COVID-19, the plans I have laid out in this syllabus may need to be adjusted later in the term. I will discuss any changes with you with as much advance notice as possible; to stay up-to-date, make sure you have [notifications for course announcements](#) turned on in OnQ! I intend to give you many opportunities to provide us with feedback (e.g., through anonymous surveys on OnQ), but I also encourage you to reach out to me – over e-mail, at office hours, or even on Twitter – with any questions or concerns you may have! I will do my best to get back to you within 48 hours of receiving your message.

Queen's University is located on the [traditional territories](#) of the Anishinaabe and Haudenosaunee peoples. I welcome conversations about what this land acknowledgement means to me.

Course Information

Description

Cognitive developmental psychologists study how we learn and think, and how these processes change over time.

In this course, we will identify important 'domains' of cognitive development and learn about the different kinds of methods that researchers use to examine children's abilities within these domains, across the major periods of life (infancy, preschool, etc.).

We will also examine the *mechanisms* by which children's abilities change – both 'intraindividual' (e.g., information-processing capabilities) and 'socio-cultural' (e.g., family influences). Research into such mechanisms can inform best practices for promoting cognitive development in everyday contexts (e.g., daycares, schools, etc.).

Language is an integral part of learning and allows us to express what we know. There will be a brief section of the lectures focused entirely on language development, but I think you will see that it is a critical component of the course as a whole.

Learning Outcomes

By the end of this course, you will have demonstrated the ability to:

- Distinguish between domain-general and domain-specific changes in children's thinking across development
- List major milestones of cognitive development and the ages at which these milestones are typically met
- Critically evaluate, compare, and contrast theoretical perspectives that provide the framework for research in cognitive and language development
- Apply basic research and theory in cognitive and language development to inform best practices in formal education and other everyday contexts (e.g., the legal system, parenting, etc.)

Student Resources

I have included a page on the course website dedicated to [resources](#) that may be helpful to students throughout the term – these resources are currently divided into two sections: 1) COVID-19 Tools and Protocols and 2) Learning Skills and Habits. I will add more helpful links whenever I find them, so you may want to check this page fairly regularly!

Required Readings

There are two types of material that you will need to read independently for this class: textbook chapters and journal articles. The assigned chapters are quite a bit longer than the articles, but (as you'll see in the Weekly Schedule, [below](#)) the chapters are usually only assigned to Tuesday classes (with the exception of Week 1, where you will be reading part of one textbook chapter for the Thursday class as well).

You may want to try pacing yourself with the readings each week instead of getting them all done at once. For example, to prepare for Week 2, you could read one third of Chapter 2 on the Friday, Monday, and Tuesday leading up to the lecture that afternoon, and then read the Gabrielli (2009) article on Wednesday. Whatever schedule works best for you, I highly recommend reading the material associated with each lecture before class – that way, you will be better prepared to engage with our discussions and activities, and you will be more likely to encode the information I present because you'll have that background to build from! It would also be a good idea to bring the readings to class, so that you'll have them on hand for reference during activities.

Textbook

Bjorklund, D. F., & Causey, K. B. (2018). *Children's Thinking: Cognitive development and individual differences* (6th edition). SAGE. ISBN: 9781506334356

You can find a [preview of the textbook](#) (which includes Chapter 1) on the publisher's website. An eBook version of the textbook is available.

Assigned Articles

For some lectures (see the Weekly Schedule, [below](#)), you will be assigned an article to read instead of a chapter from the textbook. I have included the full references and links to these articles [below](#).

About a third of these articles have a similar purpose to your textbook: they take an important topic in the field, review what has been found in the current research, and highlight questions that should be examined in the future. The rest are research articles that describe a single study or group of studies the authors have conducted themselves. For these latter articles, keep in mind that I am not expecting you to remember every little detail about the authors' methods or scrutinize their statistics. Instead, I want you to focus on understanding:

- What question(s) the authors were trying to answer
- Why that question(s) is important (e.g., it has practical implications for the real-world, it challenges existing theories, etc.)
- How the authors' methods served this goal (e.g., their two conditions allowed them to compare...)

- What conclusions can be drawn from their finding(s)

Lectures

Content

I intend to have in-class lectures be a mix between me presenting information to you (i.e., a 'traditional' lecture format) and short activities that you will perform alone, in pairs/small groups, or as a whole class. These activities are meant to help you think more deeply about the course content, develop important skills (e.g., summarizing research for a broad audience), and extend your ideas beyond what you have read. I will post the lecture slides (as a PDF) to OnQ prior to class, for students who would like to use them in their note-taking. Note that these slides may include 'placeholders' for some content (e.g., the instructions for an activity) to avoid spoiling it for you.

I will also be posting the recordings of the lectures themselves to OnQ, within 24 hours of class. My intention here is to give some flexibility for students who may need to miss class due to illness or other reasons. Note that although the full lectures will be recorded, I will be cutting out all instances of students speaking, including any comments or questions made during the lecture portion, as well as the class activities. Thus, students should be aware that they are being recorded during lectures (see the Notice below), but try not to feel self-conscious – I will never post what you say during class and I will permanently delete those sections of the recordings as soon as I have cut them! Note also that the recorded lectures will not fully capture the in-person learning environment – students who miss class will not have the opportunity to share ideas with a partner or participate in a class discussion, for example – but will instead consist only on the material I have presented.

Notice of Recording

In-person classes will be recorded using a video conferencing platform supported by Queen's University (i.e., Microsoft Teams or Zoom). The University has taken steps to configure these platforms in a secure manner. The audio (and in some cases transcription) from these classes will be made available to students in the course (i.e., posted to the OnQ site) for the duration of the term. The audio recordings may capture your name or voice – by attending in-person classes, you are consenting to the collection of this information. However, any section of the audio recordings that include your name or voice will be cut prior to the recordings being made available. If you are concerned about this process, please contact me.

See Queen's [Notice of Collection, Use, and Disclosure of Personal Information](#) for more information about the University's general policies in this area.

Current COVID-19 Guidelines

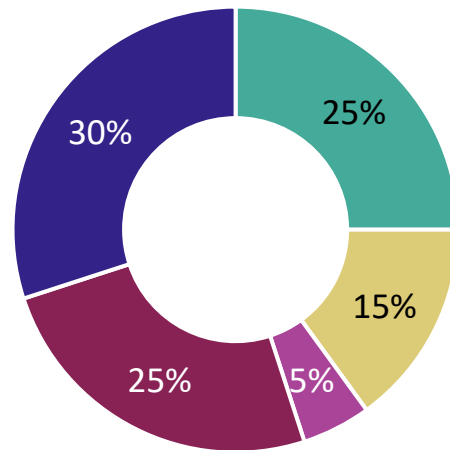
At the end of August, you should have received an e-mail about Queen's [Safe Return to Campus Protocols](#) for in-person classes. Here, I will remind you of these protocols, while placing them in context for this particular course:

- Queen's has made COVID-19 vaccines mandatory for all students and faculty coming to campus (see this page on how to [declare your vaccination status](#)). If you are not yet fully vaccinated, you will either need to wait until you are to attend in-person lectures (see my note on the lecture recordings, above) or follow additional safety measures (e.g., rapid-testing).
- Students should conduct a [self-assessment for COVID-19 symptoms](#) before they come to campus, throughout the term. If you are experiencing symptoms, you should not attend class. This includes taking the midterm and final exam – if you have to miss either due to COVID-19, you will have to submit a request for Academic Consideration, so that we can take the appropriate steps. I have provided more detail about this process in the midterm, final exam, and Extenuating Circumstances sections, below.
- [Masks](#) must be worn in all indoor spaces, including classrooms. If you have forgotten to bring a mask, you can go to one of [several locations](#) on campus to pick up a disposable one. If you cannot wear a mask for medical reasons, you will not be able to attend in-person classes – you should instead contact both an academic advisor and me so that we can consider your options and make appropriate arrangements.
 - Because we will be wearing masks, no one will be allowed to eat or drink in the classroom. If you need to do so during a lecture, you will have to go outside of the class to a private area where you can safely remove your mask.
 - Please remember to wash your hands any time you handle your mask, including adjusting it. It's a good idea to bring hand sanitizer with you to class.
- It is important that we avoid overlapping with other classes who are using the lecture hall before and after us. When you arrive to class, allow everyone from the prior class to leave before you enter. At the official end of class, we must all leave the room promptly to allow the next class to enter safely. I will do my best to end the class a bit early to allow everyone time to leave the room and I will try to save time for questions as well.
 - If I have not been able to save time for questions (i.e., it is less than 10 minutes before the official end of class), please do not wait around to talk to me – you should instead contact me over e mail or at office hours. That will ensure that we have enough time to talk about your question or concern without overlapping with the next class.

Assessments

Your performance in the course will be evaluated with four main assessments, which I briefly describe below.

- Midterm 25%
- Science Report 15%
- Review Paper
 - Writing Plan 5%
 - Final Paper 25%
- Final Exam 30%



I will provide more detail on each of these assessments as we go through the course.

Midterm

The midterm will be a mix of short answer questions (i.e., responses written in full sentences that are a couple paragraphs long) and multiple choice questions, on the material covered in Weeks 1-5. It will be written in-class on Thursday, October 21st. The multiple choice questions will *mostly* reference material from the textbook chapters and their corresponding lectures, while the short answer questions will *mostly* reference material from the assigned articles and their corresponding lectures.

Due to academic integrity concerns, students will not be able to re-write or make-up the midterm exam. If you are unable to write the midterm due to Extenuating Circumstances, you will need to request Academic Consideration. Students who are granted consideration for the midterm will have their grades reweighted to have the final exam be worth 55% of their total grade instead of 30%.

Science Report

For the [Science Report](#), you will work in a small group of other students to translate research on a topic related to the course for the general public (e.g., teachers, parents, etc.). This will include summarizing research articles in an accessible and clear way, connecting their findings to the real-world, and capturing your readers' attention with appealing visuals. Your science report can take many different forms – a newsletter, magazine article, blog post, etc. – so it's a great opportunity to be creative!

We will assign groups based on students' topic preferences. I have created a [survey](#) listing the possible topics (see the Science Report instructions for more information on each) – you must rank your top three choices by the end of Week 2 to allow us to take

your preferences into account. If you haven't ranked your choices by then, you will be randomly assigned to a group.

One member of each group should submit the [final report](#) to OnQ by Friday, November 26th (see my late policy [below](#)). Every group member will then have one week to complete the [Group Assessment](#), which is a form that asks you to reflect on everyone's contribution to the project and any challenges your group faced. We will take these assessments into consideration when assigning grades. If any major conflicts arise that your group cannot work out on your own (e.g., one member is holding up submission of the final report), feel free to contact me.

Review Paper

The [Review Paper](#) is an individual assignment. You will choose one 'intuitive belief' that people have about children's cognitive development (e.g., that twins develop their own unique language) and evaluate it using evidence from the research literature. I have split this assignment into two parts: the Writing Plan and the Final Paper.

Writing Plan

The [writing plan](#) is a short form that you will fill out and submit to OnQ by Friday, October 8th at 11:59 PM EST (see my late policy, [below](#)). The form will ask you to choose the topic for your review paper and start thinking about the evidence you will need to find for it.

Your topic must be approved by me before you start writing your final paper. I will confirm it with you after you've submitted your writing plan. If I tell you that your topic is not suited for the assignment or you decide to change it later on, you will need to confirm your new topic with me over e-mail.

Final Paper

The final paper will be a short review, with a limit of 1500 words (i.e., 5-6 pages, double-spaced). In this paper, you will describe why the intuitive belief you have chosen to investigate is important and/or interesting, provide evidence for and/or against it using at least 4 research studies, and draw practical and/or theoretical implications from what you have found.

You should submit the [final paper](#) to OnQ by Friday, December 3rd at 11:59 PM EST (see my late policy [below](#)).

Final Exam

The final exam will be a similar format to the midterm – with short answer questions that focus *mostly* on material from the textbook chapters and their corresponding lectures and multiple choice questions that focus *mostly* on material from the assigned articles and their corresponding lectures – but will also include one long answer question (i.e., a short essay that is a couple pages long). The final exam will cover material from Weeks 6-12 and will be written during the final exam period.

Once the Exams Office has arranged dates for final exams (which should be around Reading Week Reading Week this term), they will be posted to SOLUS. You should delay finalizing any travel plans in December until after your exam schedules have been posted; the final exam will not be moved or deferred to accommodate conflicts due to employment, holiday plans, or travel arrangements. Students who cannot write a final exam due to Extenuating Circumstances will need to write a deferred exam during the [Psychology department's make-up exam period](#).

Late Policy for Written Assignments

For all of the written assignments in this course (i.e., the Science Report, Writing Plan, and Final Review Paper), I will grant you an automatic 3-day grace period. Thus, you will be able to submit all of these assignments by the Monday (11:59 PM EST) following the original due date with *no* penalty. You do *not* need to tell me that you will be using a grace period – I have created this extension to build in short-term consideration for all students.

Note, however, that the dropbox for submissions will close at the end of this grace period. To submit an assignment after this date, students will need to contact me to get permission and discuss a reasonable new timeline. If you have general concerns about submitting your assignments on time, for example due to [Extenuating Circumstances](#) or a need for academic accommodations, please reach out to me as soon as you can so that we can make arrangements.

Grade Conversions

All components of this course will receive numerical points. At the end of the course, I will round your final numerical grade to the nearest whole number (e.g., 84.2% = 84%; 84.8 = 85%), which will then be converted to a letter grade according to Queen's Official Grade Conversion Scale:

Letter Grade	Numerical Range
A+	90-100
A	85-89
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	49 \geq

Academic Integrity

Queen's students, faculty, administrators and staff all have responsibilities for upholding the [fundamental values of academic integrity](#); honesty, trust, fairness, respect, responsibility and courage. These values are central to the building, nurturing, and sustaining of an academic community in which all members of the community will thrive. Adherence to the values expressed through academic integrity forms a foundation for the "freedom of inquiry and exchange of ideas" essential to the intellectual life of the University (see the [Senate Report on Principles and Priorities](#)).

Students are responsible for familiarizing themselves with the regulations concerning academic integrity and for ensuring that their assignments and their behaviour conform to its principles. Information on academic integrity is available in the Arts and Science Calendar (see the [Academic Regulations](#) page), on the [Arts and Science website](#), and from the instructor of this course. Departures from academic integrity include:

- Plagiarism (i.e., presenting another's ideas/phrasings as one's own without proper acknowledgement)
- Use of Unauthorized Materials (e.g., possessing unauthorized study materials during an exam)
- Facilitation (i.e., enabling another student's breach of academic integrity)
- Forgery (i.e., submitting counterfeit documents or statements)
- Falsification (i.e., misrepresenting one's self, one's work, or one's relation to the university)
- Unauthorized Use of Intellectual Property (e.g., uploading course materials to note-sharing websites without the instructor's permission – see the Copyright section [below](#))

Departures from academic integrity are antithetical to the development of an academic community at Queen's. Given the seriousness of these matters, actions which contravene the regulation on academic integrity carry sanctions that can range from a warning or the loss of grades on an assignment to the failure of a course to a requirement to withdraw from the university.

Turnitin

This course uses Turnitin, a third-party application that helps maintain standards of excellence in academic integrity. You will be required to submit certain course assignments through OnQ to Turnitin. In doing so, your work will be included as source documents in the Turnitin reference database, where they will be used solely to detect plagiarism.

Turnitin is a suite of tools that provide instructors with information about the authenticity of submitted work and facilitates the process of grading. Turnitin compares submitted files against its extensive database of content, and produces a similarity report and a

similarity score for each assignment. A similarity score is the percentage of a document that is similar to content held within the database. Turnitin does not determine if an instance of plagiarism has occurred. Instead, it gives instructors the information they need to select the authenticity of work as a part of a larger process.

Please read [Turnitin's Privacy Pledge, Privacy Policy, and Terms of Service](#), which govern users' relationship with Turnitin. Also, please note that Turnitin uses cookies and other tracking technologies; however, in its service contract with Queen's, Turnitin has agreed that neither Turnitin nor its third-party partners will use data collected through cookies or other tracking technologies for marketing or advertising purposes. For further information about how you can exercise control over cookies, see [Turnitin's Privacy Policy](#).

Turnitin may provide other services that are not connected to the purpose for which Queen's University has engaged Turnitin. Your independent use of Turnitin's other services is subject solely to Turnitin's Terms of Service and Privacy Policy, and Queen's University has no liability for any independent interaction you choose to have with Turnitin.

Copyright

Course materials created by the current or past instructors for this course, including all slides, lecture recordings, handouts, assignment instructions, exams, and other similar course materials, are the intellectual property of their creators. It is a departure from academic integrity to distribute, publicly post, sell or otherwise disseminate such material without the instructor's *express consent*.

Academic Accommodations

If you think you may need academic accommodations and you have not yet registered with [Queen's Student Wellness Services](#) (QSAS), I encourage you to do so as soon as possible. Once you have registered, please send submit your letter to the [accommodations dropbox](#) in OnQ.

I understand that registration and renewals with QSAS can sometimes be delayed, especially in the Fall term when they are processing a lot of students at once. If you have not yet received your official Letter of Accommodation by **Friday, September 24th**, please contact Sylvia (sgdv1@queensu.ca) to let her know the accommodations for which you expect to be approved (e.g., by providing a letter from a previous year), so that we can plan ahead for the midterm. You can then submit your official letter to the OnQ dropbox once you have received it.

Academic Consideration for Extenuating Circumstances

Queen's University is committed to providing [Academic Consideration](#) to assist students experiencing unforeseen, short-term extenuating circumstances that may impact or impede their ability to complete their academics. This may include but is not limited to:

- Short-term physical or mental health issues (e.g., stomach flu, pneumonia, COVID diagnosis, vaccination, etc.)
- Responses to traumatic events (e.g., death of a loved one, divorce, sexual assault, social injustice, etc.)
- Requirements by law or public health authorities (e.g., court date, isolation due to COVID exposure, etc.)

Arts and Science students who need Academic Consideration for the midterm or final exam will need to submit a [request through the Faculty of Arts and Science portal](#). You will be asked to provide the name and e-mail address for your instructor – please list the following:

Instructor: Tara Karasewich

Instructor E-mail: tk51@queensu.ca

Students in other Faculties and Schools who are enrolled in this course should refer to the protocol for their home Faculty.

I encourage you to submit requests for Academic Consideration as soon as the need becomes apparent and to contact me as soon as possible once consideration has been granted. If you have any questions about this process, feel free to reach out to me or to the Academic Consideration Team at: asc.consideration@queensu.ca

Weekly Schedule

For the most part, each week of the course will cover one topic in the area of cognitive and language development. Usually, I'll use the first lecture of the week to give you an overview of the topic and then we'll take a closer look at a particular question or controversy in that area in the following lecture, although there may be overlap between them. As you can see, the first lecture of every week will be supported by chapters in the textbook, while the second lectures (with the exception of the first week) will be supported by assigned articles. You should aim to read the assigned readings *prior* to class.

Weeks	Dates	Topics and Deadlines	Readings
1	Tu: Sept. 7	What is Cognitive Development?	Chapter 1
	Th: Sept. 9	Spotlight on Piaget	Chapter 5 (pp. 154-180)
2	Tu: Sept. 14	Biological Factors	Chapter 2
	Th: Sept. 16	The Biological Bases of Dyslexia	Gabrielli, 2009
	Fr: Sept. 17	Science Report topic picks due	
3	Mo: Sept. 20	<i>End of no-penalty drop period</i>	
	Tu: Sept. 21	Socio-cultural Factors	Chapter 3
	Th: Sept. 23	Reading Digitally vs. Print	Munzer et al., 2019
4	Tu: Sept. 28	Infant Perception & Cognition	Chapter 4
	Th: Sept. 30	Statistical Learning	Lew-Williams & Saffran, 2012
5	Tu: Oct. 5	Symbolic Understanding	Chapter 5 (rest)
	Th: Oct. 7	Scale Errors	DeLoache et al., 2004
	Fr: Oct. 8	Writing Plan due	
N/A	Oct. 11–15	Reading Week – No Classes	Have a good break!
6	Tu: Oct. 19	Causal Understanding	Legare, 2014
	Th: Oct. 21	Midterm (in-class)	Study content from Weeks 1-5

7	Tu: Oct. 26 Th: Oct. 28	Core Domains of Understanding False Belief in Infancy	Chapter 6 Sodian, 2011
8	Tu: Nov. 2 Th: Nov. 4	Executive Functioning The Marshmallow Test	Chapter 7 Kidd et al., 2013
9	Tu: Nov. 9 Th: Nov. 11	Memory Development Children as Eyewitnesses	Chapter 8 Otgaar et al., 2018
10	Tu: Nov. 16 Th: Nov. 18 Fr: Nov. 19	Language Development Critical Periods Science Report due	Chapter 9 Svirsky et al., 2004
11	Tu: Nov. 23 Th: Nov. 25 Fr: Nov. 26	Word Learning Bilingualism & Executive Function Group Assessment due	Akhtar, 2005 Morton & Carlson, 2017
12	Tu: Nov. 30 Th: Dec. 2 Fr: Dec. 3	Social Cognition Gender Cognition Research Paper due	Chapter 10 Gülgöz et al., 2019
N/A	TBD	Final Exam	Study content from Weeks 6-12

Assigned Articles

I have included links to each article in its title, which should allow you to access them off-campus. If any link doesn't work, you should still be able to find the article by using Queen's library services (e.g., Google Scholar) while you are logged onto its server.

1. Gabrielli, J. D. E. (2009). [Dyslexia: A new synergy between cognitive neuroscience and education](#). *Science*, 325, 280-283.
2. Munzer, T. G., Miller, A. M., Weeks, H. M. Kaciroti, N. & Radesky, J. (2019). [Parent-toddler social reciprocity during reading from electronic tablets vs print books](#). *JAMA Pediatrics*, 173, 1076-1083.
3. Lew-Williams, C., Saffran, J. R. (2012). [All words are not created equal: Expectations about word length guide infant statistical learning](#). *Cognition*, 122, 241-246.
4. DeLoache, J. S., Uttal, D. H., & Rosengren, K. S. (2004). [Scale errors offer evidence of an perception-action dissociation early in life](#). *Science*, 304, 1027-1029.
5. Legare, C. H. (2014). [The contributions of explanation and exploration to children's scientific reasoning](#). *Child Development Perspectives*, 8, 101-106.
6. Sodian, B. (2011). [Theory of mind in infancy](#). *Child Development Perspectives*, 5, 39-43.
7. Kidd, C., Palmeri, H., & Aslin, R. N. (2013). [Rational snacking: Young children's decision-making on the marshmallow task is moderated by beliefs about environmental reliability](#). *Cognition*, 126, 109-114.
8. Otgaar, H., Howe, M. L., Merckelbach, H., & Muris, P. (2018). [Who is the better eyewitness? Sometimes adults but at other times children](#). *Current Directions in Psychological Science*, 27, 378-385.
9. Svirsky, M. A., Teoh, Su-Wooi, & Neuburger, H. (2004). [Development of language and speech perception in congenitally, profoundly deaf children as a function of age at cochlear implantation](#). *Audiology & Neuro-Otology*, 9, 224-233.
10. Akhtar, N. (2005). [The robustness of learning through overhearing](#). *Developmental Science*, 8, 199-209.
11. Morton, J. B. & Carlson, S. M. (2017). [The bilingual advantage: Evidence and alternative views](#). In M. J. Hoskyn et al. (Eds.) *Executive functions in children's*

everyday lives: A handbook for professionals in applied psychology (pp. 111-117).

12. Gülgöz, S., Glazier, J. J., Enright, E. A., Alonso, D. J., Durwood, L. J., Fast, A. A., Lowe, R., Ji, C., Heer, J., Martin, C. L., & Olson, K. R. (2019). [Similarity in transgender and cisgender children's gender development](#). *Proceedings of the National Academy of Sciences (USA)*, 116, 24480-24485.