



## 创造力 + 创新研究项目 Program on Creativity + Innovation

### **Creativity Considered<sup>1</sup>**

CCST-SHU 132-001

Spring 2018

Meeting time: Tuesdays, 8:15am-10:45am

Instructors: Adam Brandenburger and Jeffrey Lehman

Research Assistants: Sam (Yuqing) Li, Aura Viale Branco

### **Overview**

We hear every day about the importance of creativity in our lives, careers, and societies — its importance for personal development, for the generation of new ideas, forms, and expressions, for the work of organizations, large or small in scale, science and technology or arts and culture-focused, in the private or public sector. And yet, it is important to ask: Can creativity be usefully studied or is it, in fact, something best left to life, luck, or other factors that may determine one's abilities and opportunities in this area? The premise of this course is that, while not taking away from what can be called the magical aspect of creativity, we can benefit from considering creativity in some detail.

Another premise of the course is that there is merit in considering creativity across very different areas of human enterprise — science, art, business, government, and more. Implicit in this premise is the assumption that while creativity is manifested in many different ways, there are some common characteristics of creative work which we can identify and put into practice.

A detailed consideration of creativity across various areas of human enterprise is the subject matter of this course.

### **Course Structure**

The course will adopt two-pronged approach to considering creativity. We will look together at a range of writing on the subject of creativity. We will also develop semester-long projects on people ("creators") who have produced important breakthroughs in the arts, sciences, technology, business, or elsewhere. This way, readings are supplemented with examinations of real people and their creative endeavors. At the same time, the projects are informed by some general ideas and concepts, so that they become not just descriptions but also analyses of the creators in question.

For the projects, students will form teams of two, and each team will select and study a particular pair of creators. By studying two people rather than just one person, each team will be prompted to go beyond just telling the stories of creative people, and will be prompted to look for similarities and differences across their two creators. We will also pool together all of the projects undertaken in the course, as we search for overall patterns and tendencies in creative work.

The architecture of the course is summarized in the following table:

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<sup>1</sup> This syllabus has benefitted greatly from the commitment to learning made by the students who took the course in Spring 2017. Discussions of concepts and creators in the classroom and beyond, and suggestions and ideas offered even after the course had ended, were extremely valuable and are gratefully acknowledged.

	<b>Reading and discussion</b>	<b>Project work</b>
<b>Class #1 - #7</b>	Metaphors for Creativity and the Messiness of Creativity Creativity as Paradigm Shift Creativity as Openness to Experience Creativity from Four Great Motives Creativity from Five Forms of Combination Creativity from the Whole Brain Creativity from Constraints	Form teams of two for semester-long project Discuss criteria for choosing a duo of creators to study in your project Brief instructors on team's choice of creative duo Prepare initial poster on creative duo Apply successive class readings and discussions to studying the team's duo Prepare first-round presentation and accompanying handout
<b>Class #8 - #9</b>		Deliver first-round presentation Receive feedback on presentation
<b>Classes #10 - #11</b>	Creativity from the Group Creativity in Action	Edit first-round presentation Add personal lessons about creativity in yourself and in the world Prepare second-round presentation
<b>Class #12 - #13</b>		Deliver second-round presentation Receive feedback on presentation
<b>Class #14</b>	Concluding Thoughts and Looking Ahead	Integrate presentation and personal lessons in the form of a final essay

## Learning Objectives and Outcomes

The course is designed to achieve several objectives and outcomes.

a. There is a common prevailing narrative about creativity — a narrative that emphasizes the quest for novelty, certainty of purpose, the role of the individual spirit, freeing of oneself from constraints, and so on. While not denying that there is truth in this narrative, we believe that it is an incomplete picture and that there are also other characteristics to be found underneath creativity. The course will help students develop an expanded narrative about creativity — one that looks at the importance of paying close attention to what already exists as well as the new, of being fluid and open to exploration, of thinking and working in groups as well as individually, of operating under constraints as well as free of them, and more.

b. We all carry around stories of our favorite (often, famous) creators. Often, these creators will be people who worked or work in our own areas of interest — a writer or artist, say, if we are in the humanities, or, perhaps, a scientist or mathematician, if these are more our areas of interest, or an entrepreneur, or a leader. The course will cover creators from all these domains. It will therefore help students broaden their knowledge about, and appreciation of, creative work across domains.

c. By the end of the course, we will have assembled a database of creators made up of people we have read about and discussed, and of people who are the subjects of the student projects. The creators will represent a wide variety of time, places, and areas of work. The course will attempt to discern some patterns and tendencies across creators which may offers guides to behaviors and circumstances that can spur one's own creativity.

d. The course is an exploration of creativity out there in the world — as we study creators and writings about creativity. The course is also designed to help students gain a deeper understanding of their

own existing and evolving creative selves and, importantly, to help everyone gain greater confidence in their own creative capacities.

e. Through readings, class discussions, project work, presentations, and a final essay, students will practice and further develop their general critical reading and thinking skills, and their effectiveness in listening, communicating, and writing.

## Deliverables and Grading

	First-round presentation	Accompanying handout	Second-round presentation	Final essay	Class participation
<b>Mode</b>	Team	Individual	Team	Individual	Individual
<b>Fraction of grade</b>	10%	30%	10%	30%	20%
<b>Criteria</b>	(i) organization and clarity of the oral and/or written material (ii) accuracy and depth in use of concepts from class materials (iii) power and originality of insights provided			(i) level of pre-class preparation indicated by comments made in class (ii) engagement in discussion in class of assigned materials (iii) engagement in feedback in class on fellow students' work	

The grading scale for the course is from A to F, where the grades indicate:

- A: excellent organization and clarity in all work, accurate and in-depth use of concepts, powerful and original insights, well-prepared and effective class contributions
- B: good performance with respect to these same criteria, with sound general grasp and good-but-not-always-excellent content and engagement evidenced
- C: satisfactory performance with respect to these criteria, with basic understanding and engagement evidenced
- D: passable performance with respect to these criteria, with superficial understanding and limited engagement evidenced
- F: unsatisfactory performance with respect to these criteria

## Course Resources

### Students with Disabilities

NYU is committed to providing equal educational opportunity and participation for students with disabilities. It is NYU Shanghai's policy that no student with a qualified disability be excluded from participating in any NYU Shanghai program or activity, denied the benefits of any NYU Shanghai program or activity, or otherwise subjected to discrimination with regard to any NYU Shanghai program or activity.

The Henry and Lucy Moses Center for Students with Disabilities (CSD) in New York determines qualified disability status and assists students in obtaining appropriate accommodations and services. CSD operates according to an Independent Living Philosophy and strives in its policies and practices to empower each student to become as independent as possible. Their services are designed to encourage independence, backed by a strong system of supports.

Any student who needs a reasonable accommodation based on a qualified disability is required to register with the CSD for assistance. They should contact the Director of the Academic Resource Center, Cydney Delia (cydney.delia@nyu.edu) for assistance in registering.

### Tutoring and Writing Support

The Academic Resource Center (ARC) provides tutoring and support to students looking to reach their highest academic potential. Students can schedule a meeting, or drop by, for any of the following:

- Individual and small-group tutoring in over 30 STEM and Business & Economics courses
- Individual writing consultations at any stage of the writing process
- Academic coaching in areas such as time management, reading & note-taking strategies, exam preparation, and goal setting
- Workshops on writing, academic skills, and technologies
- Group study and conversation circles

Students are also welcome to study on their own in the comfortable, supportive atmosphere of the ARC.

### Library and Research Services

The Library is available to support your research needs. We have access to 14,000 print resources, 2,000 DVDs, and 1,000 databases (including over a million e-books, as well as streaming audio & video and image databases). Librarians with expertise in fields such as Business, Economics, Humanities, Science (STEM), and Social Sciences are available in-person and online to help you with your research. Our services include:

- One-to-one consultations to help you with your research projects
- Reference Desk hours in the library for immediate help with finding & using resources
- Workshops throughout the semester on research strategies, special databases, academic integrity, and using citation tools

Visit the Library on the 4th floor, or go to <https://shanghai.nyu.edu/academics/library> to learn more.

## **Academic Integrity**

It is a condition of passing this course that students read and adhere to the NYU Shanghai policy on academic integrity as described at <https://shanghai.nyu.edu/academics/curriculum/bulletin>.

## **Class Schedule**

### Class #1, January 23rd: Metaphors for Creativity and the Messiness of Creativity

#### **Assignment**

In preparation for our first class, please read through this syllabus, which will give you the overall picture of how the course will unfold.

In class, we will do self-introductions and share our motivations for joining this semester-long consideration of creativity. So, please give some thought in advance to how you want to introduce yourself.

Please read and prepare:

- a. Kyna Leski, *The Storm of Creativity*, MIT Press, 2015, Chapter 1 (“Creativity as Storm”).
- b. Scott Barry Kaufman and Carolyn Gregoire, *Wired to Create: Unraveling the Mysteries of the Creative Mind*, Perigee, 2015, Preface and Introduction (“Messy Minds”).

The reading from *The Storm of Creativity* offers a metaphor for the creative process, namely, that of a storm. Please think about a metaphor of your own for creativity, write half a page describing your metaphor, and come to class ready to read and share.

In the reading from *Wired to Create*, the authors review and then reject a classic four-stage model of creativity (preparation, incubation, illumination, verification). Why do the authors reject this model, and what do they mean by emphasizing instead the “messiness” of creativity? What does the word “duality” mean? List all the places in the reading you can find where the authors talk about dualities exhibited by the creative mind. Come to class ready to explain the role that the authors say each duality plays in creativity.

Additional:

c. Go to <https://www.baronfig.com/pages/spark>, to download Spark, an app you can use to generate, whenever you feel like it, random pairs of inspirational prompts based on a dichotomy between Discipline and Impulse. This makes a nice complement to the discussion of dualities in *Wired to Create*.

d. Go to <https://www.brainpickings.org/mission/> to read a very well-known and highly praised weekly blog on creativity by writer Maria Popova. In her blog, Popova promotes a view of creativity as a combinatory activity, and we will read some of her entries on this viewpoint later in the course.

## Class #2, January 30th: Creativity as Paradigm Shift

### **Assignment**

Please read and prepare:

a. Adam Grant, *Originals: How Non-Conformists Move the World*, Viking, 2016, Chapter 1 (“Creative Destruction”), pp.1-14.

b. Charles Duhigg, *Smarter, Faster, Better*, Heinemann, 2016, Chapter 7 (“Innovation: How Idea Brokers and Creative Desperation Saved Disney's *Frozen*”).

c. “I am utterly disgusted: Legendary animator Hayao Miyazaki takes AI down a peg,” *Recode*, December 11, 2016, at <https://www.recode.net/2016/12/11/13908296/hayao-miyazaki-artificial-intelligence-viral-video>.

The reading from *Originals* offers a picture of creators as ‘unreasonable’ (in a good way!), revolutionary, giant-killing, rebellious, scrappy, non-conforming, status-quo questioning, default-rejecting individuals. This is a common and powerful narrative about creators. Which of these qualities (and others) mentioned in the reading do you view as fully necessary to creative endeavor, and which would you downplay or even reject?

The reading from *Smarter, Faster, Better* describes how, in making the movie *Frozen*, Disney wanted to change its existing formula and not just retell an old fairy tale. What techniques did the Disney team use to come up with the paradigm-breaking storyline in *Frozen* (a storyline of love vs. fear rather than the traditional good vs. evil)?

In the video segment featuring the famous animator Hayao Miyazaki, we hear him decrying a particular use of technology in animation. (Miyazaki is known for continuing to draw his creations by hand, long after the arrival of computer animation techniques.) Do you view Miyazaki as a conservative or a rebel in adopting this position? Come to class ready to defend your view.

Additional:

d. Go to <https://www.wired.com/2012/11/the-decades-that-invented-the-future-part-3-1921-1930/> to read one of a series of articles in *Wired* magazine about leading inventions in each decade of the twentieth century. This entry covers 1921-1930. It is especially interesting in that the inventions covered range from more radical (paradigm-breaking) to more incremental (paradigm-enhancing).

e. Go to <https://www.theatlantic.com/magazine/archive/2015/01/the-death-of-the-artist-and-the-birth-of-the-creative-entrepreneur/383497/> to read an essay putting forward a thesis that our image of the artist has changed over time from “hard-working artisan” to “solitary genius” to “credentialed professional” to “creative entrepreneur.”

### **Project Work**

In this class, we will lay out the process of the course-long projects. The first step will be to ask you to form teams of two. As the two members of your team, you will then be asked to choose two people — a creative duo — as the subjects of your course-long project. We will go over some criteria for you to employ as you make your choice of duo.

### Class #3, February 6th: Creativity as Openness to Experience

#### **Project Work**

In your team, prepare a proposal for whom you will choose as your creative duo. Schedule a meeting with us, prior to Class #3, to discuss your proposal. As you work on your choice of creative duo, keep the following considerations in mind:

Make sure there are interesting contrasts between the two people who constitute your creative duo

Choose people whom you care about

Remember that creators work in many different fields — arts, sciences, technology, business, elsewhere (creators are not only artists!)

Think about choosing people who are not necessarily extremely famous (but do check that there will be sufficient information available about the people you choose)

Likely, the people you choose have some special meaning for you (role models? heroes? anti-heroes?)

Be sure to have some personal investment in your choice, so that your project takes on real significance for you

After discussion of your proposal with us, prepare a poster depicting your team’s choice of creative duo. Bring your poster to class and be ready give a short briefing to the class about who the people you chose are and, importantly, about your motivation for choosing your duo.

#### **Assignment**

Please read and prepare:

a. Kyna Leski, op.cit., Chapter 2 (“Unlearning”), pp.11-18.

b. Luke Smillie, “Openness to Experience: The Gates of the Mind,” *Scientific American*, August 2017, at <https://www.scientificamerican.com/article/openness-to-experience-the-gates-of-the-mind/>.

In the reading from *The Storm of Creativity*, what is the logical thread which the author says takes us from “unlearning” to creating? What attitudes and techniques does she suggest can aid the process of unlearning?

In the article “Openness to Experience: The Gates of the Mind,” the author describes a number of attitudes and behaviors which he says are found in people who exhibit openness. Come to class with a list of the attitudes and behaviors he mentions, and ready to discuss the extent to which you think each of them may serve to promote creative work.

Additional:

c. The reading from *The Storm of Creativity* emphasizes that not knowing is an important mindset for scientists as well as artists. Go to [https://www.youtube.com/watch?v=QkhBcLk\\_8f0](https://www.youtube.com/watch?v=QkhBcLk_8f0) to watch a short interview with the famous physicist Richard Feynman, who wrote and spoke a lot about a philosophy of science (and life) based on an attitude of enlightened ignorance.

d. Stuart Firestein, *Ignorance: How It Drives Science*, Oxford University Press, 2012 (Introduction; Chapter 1: “A Short View of Ignorance”) talks about elevating the importance of questions above answers and (a positive form of) ignorance over knowledge.

#### Class #4, February 13th: Creativity from Four Great Motives

##### **Assignment**

Please read and prepare:

a. “Why I Write,” by George Orwell, *Gangrel* magazine, Summer 1946, at <http://gutenberg.net.au/ebooks03/0300011h.html#part47>.

As you read this classic piece, focus on what Orwell calls “four great motives.” His focus is on writing, but as you read, ask yourself to what extent you think these motives do or do not apply to other areas of creative work. Be ready to propose areas to which you think some or all of Orwell’s four motives do apply, and areas to which you think some or all do not apply.

Additional:

b. Go to <https://www.thecut.com/2017/02/yayoi-kusama-infinity-mirrors-ultimate-instagram-exhibit.html> for an article about the famous artist Yayoi Kusama, which talks about her notion of “self-obliteration” in her work. It is interesting to put the notions of ego (as above) and self-obliteration side-by-side, and ask if they are in tension with or reinforce each other.

c. Go to <https://www.brainpickings.org/2012/06/25/george-orwell-why-i-write/> for a commentary on Orwell’s essay by Maria Popova (on her *Brain Pickings* blog).

##### **Project Work**

In class, you will spend some time, in your teams, developing posters on which you say something about the presence (or not) of each of Orwell’s four great motives in your creators’ lives. We will then go around the room for poster presentations.

#### Class #5, February 27th: Creativity from Five Forms of Combination

##### **Assignment**

Please read and prepare:

a. Maria Popova, “Combinatorial Creativity and the Myth of Originality,” June 2012, at <http://www.smithsonianmag.com/innovation/combinatorial-creativity-and-the-myth-of-originality-114843098/>.

b. Maria Popova, “What Is Creativity? Cultural Icons on What Ideation is and How It Works,” September 2013, at <https://www.brainpickings.org/2013/09/06/what-is-creativity/>. (In this reading, concentrate on the parts that talk about combination.)

c. Isaac Asimov, "On Creativity," 1959, at <https://www.technologyreview.com/s/531911/isaac-asimov-asks-how-do-people-get-new-ideas/>.

In "Combinatorial Creativity and the Myth of Originality" and "What Is Creativity? Cultural Icons on What Ideation is and How It Works," we see that many creators from very different fields converge on a very similar way of talking about creativity, namely, a way that puts combination of ideas center-stage. List all the different fields of creative work represented by the people mentioned in this regard in these two readings.

In "What Is Creativity? Cultural Icons on What Ideation is and How It Works," identify (at least) five different specific modes of combinatory thought suggested there. Come to class ready to share and discuss the different modes you found.

In his essay "On Creativity," what are the different roles Asimov sees for individual thinking and group discussion, respectively, when seeking cross-connections between ideas?

Additional:

d. Go to <https://www.youtube.com/watch?v=hcfGViXv4YQ&sns=em> to see an analysis of the combinatorial creativity underlying the construction of the battle scene in the HBO series *Game of Thrones* (Season 7, Episode 4).

e. Henri Poincaré, "Mathematical Creation," *The Monist*, 20, 1910, 321-335, at <https://academic.oup.com/monist/article-abstract/20/3/321/2335282/Mathematical-Creation-1?redirectedFrom=fulltext>. This is the full essay by the great mathematician Henri Poincaré on the process of creating mathematics, which is quoted in the first reading above by Maria Popova.

f. Garry Kasparov, *Deep Thinking: Where Machine Intelligence Ends and Human Creativity Begins*, John Murray, 2017, Introduction. In this book, former world chess champion Garry Kasparov proposes that the human-machine collaboration ('combination') possible today can lead us to greater creative achievements than ever before.

### **Project Work**

We will again devote some class time to your projects — this time, looking for places where combinatory thinking, in one or more of the modes we discuss in class, is evident in your creators' work.

### Class #6, March 6th: Creativity from the Whole Brain

#### **Project Work**

Schedule a meeting with us, prior to Class #6, to review your progress towards preparing your first-round presentations and accompanying handouts (for the March 19th and 26th sessions).

#### **Assignment**

Please read and prepare:

a. Scott Barry Kaufman, "The Real Neuroscience of Creativity," *Scientific American*, August 2013, at <https://blogs.scientificamerican.com/beautiful-minds/the-real-neuroscience-of-creativity/>.

Read this article with the goal of extracting, in everyday terms, some rough insights into what may be taking place inside people's brains as they engage in creative work. Two important caveats. First, such insights are necessarily tentative, given that it is very early days in studying creativity at a neural level. Second, the goal is not to reduce the study of creativity to the study of the brain. (Just because creativity comes physically from the brain, it does not follow that all explanations of



creativity must be sought at the neural level. To say otherwise is to commit the error of confusing material with analytical reductionism!)

The article mentions three brain networks as being important to neural processes underlying creativity. What does the article say about how these networks interact? How does this network view differ from older views of how the brain functions during creative activity?

Additional:

b. Go to [https://fga.cncr.nl/outreach/brain\\_myths](https://fga.cncr.nl/outreach/brain_myths) for a series of animated videos (1: The Love Hormone; 2: The 10% Myth; 3: The Left and Right Brain; 4: Brain Training) dispelling longstanding myths about how the human brain works.

c. Anna Abraham, "The Promises and Perils of the Neuroscience of Creativity," *Frontiers in Human Neuroscience*, 2013, at <https://doi.org/10.3389/fnhum.2013.00246>. This article lays out some challenges faced by neuroscientific studies of creativity.

d. Allison Kaufman, Sergey Kornilov, Adam Bristol, Mei Tan, and Elena Grigorenko, "The Neurobiological Foundation of Creative Cognition," in James Kaufman and Robert Sternberg, eds., *The Cambridge Handbook of Creativity*, Cambridge University Press, 2010, Chapter 11. This is a more in-depth and somewhat more technical review of work asking how hemispheric asymmetry and cognitive disinhibition may relate to creativity.

### **Project Work cont'd**

In class, you will devote some time to working on looking into what your creators have said about their own mental processes, and, perhaps, what other people have said about your creators' mental processes.

### **Class #7, March 13th: Creativity from Constraints**

#### **Assignment**

Please read and prepare:

a. Patricia Stokes, *Creativity from Constraints: The Psychology of Breakthrough*, Springer, 2006, Chapter 1 ("The Creativity Problem").

b. Patricia Stokes, "Thinking Inside the Tool Box: Creativity, Constraints, and the Colossal Portraits of Chuck Close," *The Journal of Creative Behavior*, 48, 2014, 276-289, at <https://cool.barnard.edu/pat-stokes/wp-content/uploads/2015/03/ChuckClose.pdf>.

c. Adam Brandenburger, "Where Do Great Strategies Really Come From?" *Strategy Science*, 2, 2017, 220-225, at <https://pubsonline.informs.org/doi/pdf/10.1287/stsc.2017.0039>, Sections 3-5.

In the reading from *Creativity from Constraints: The Psychology of Breakthrough*, the author links creativity to solving ill-structured (as distinct from well-structured) problems. She goes on to say that constraints play an essential role in tackling these problems. Come to class ready to present the logic of her argument.

In "Thinking Inside the Tool Box: Creativity, Constraints, and the Colossal Portraits of Chuck Close," the author writes that, contrary to the popular adage, we can only solve problems by thinking inside-the-box (of tools). But she also says that we can change the size of this box. What does she mean by this and what does she say about how we can do this?

In “Where Do Great Strategies Really Come From?” several examples of creativity from constraints are given (in Section 4 there). Create a classification scheme for yourself of the different kinds of constraints you see at work in these examples.

Additional:

d. Go to <https://www.brainpickings.org/2017/09/19/beethoven-take-fate-by-the-throat/> for thoughts by Maria Popova on connecting physical suffering and limitations to creativity (on her *Brain Pickings* blog).

e. Go to <https://medium.com/@JVFORM/what-we-can-learn-about-constraints-and-creativity-from-hip-hop-ce7c8d70fc06> for an analysis of how the evolution of hip-hop was shaped by the constraints faced by the early artists.

### **Project Work**

In class, you will devote some time to investigating the extent to which the kinds of constraints we discuss in class apply to your creators’ processes, lives, and environments. There will also be time for you to work on your first-round presentations.

### Class #8, March 20th: First-Round Presentations

#### **Project Work**

See the sections “First-Round Presentation” and “Accompanying Handouts” below, for detailed instructions on preparing these deliverables.

As you are finalizing your first-round presentations for this class, please remember a few things:

Choose the presentation format which you feel suits you and your topic best — slides, short video, paper-based, mainly oral, ... — but remember that your presentation should include, for each of your two creators, a visual representation of at least one breakthrough piece of his or her work.

Tell a story, which is based on the research you have done, but which is, nevertheless, a story in the sense that you command our attention by the way you take us through: a case study of each creator; some thoughts about the comparison between the two creators; and, very important if relatively brief in this first-round presentation, what all this means for you and your creative self.

In short, dig into your own thoughts and feelings and, in this way, make us care about what you are telling us.

Prepare and distribute accompanying handouts (as two individual pieces of work).

### Class #9, March 27th: First-Round Presentations Cont’d.

After the first-round presentations are complete and the accompanying handouts have been submitted, there will be detailed feedback sessions scheduled to help you move to the next level of work in your second-round presentations and final essays.

### Class #10, April 3rd: Creativity from the Group

#### **Assignment**

Please read and prepare:

a. Keith Sawyer, *Group Genius: The Creative Power of Collaboration*, Basic Books, rev. edition, 2017, Chapter 4 (“From Groupthink to Group Genius”).

b. Andre Walton, "Resolving the Paradox of Group Creativity," *Harvard Business Review*, January 2016, at <https://hbr.org/2016/01/resolving-the-paradox-of-group-creativity>.

So far, our focus has been on creativity at the level of the individual. This session, we will shift attention from the individual to the group.

The interest in creativity at the level of the group is the natural hope that a kind of 'superadditivity' comes into play -- that the creative output of a group is greater, in some suitably measured way, than the sum of the outputs that would result from individual work by members of the group. But there are also potential costs associated with group activity, as the two readings describe. If these costs are too high, a group may actually underperform individuals.

What is the argument advanced in *Group Genius: The Creative Power of Collaboration* for why groups may encounter problems in performing creative work? What is the argument advanced in "Resolving the Paradox of Group Creativity" for this possibility? Compare the two arguments, and also compare the solutions to this issue which the two readings propose. Come to class ready to share your findings.

Additional:

c. Frans de Waal, *The Age of Empathy: Nature's Lessons for a Kinder Society*, Random House, 2009, Chapter 1 ("Biology, Left and Right"). This book, written by a leading primatologist, says that humans, like other primates, exhibit a fundamental duality. We have a basic tendency to be self-interested and an equally basic tendency to be pro-social. This thesis supports the argument in the reading "Resolving the Paradox of Group Creativity."

Class #11, April 10th: Creativity in Action

### **Assignment**

Please read and prepare:

a. Twyla Tharp, *The Creative Habit: Learn It and Use It for Life*, Simon & Schuster, 2003, Chapter 3 ("Your Creative DNA"), pp.35-44.

b. David Kadavy, *The Heart to Start: Win the Inner War & Let Your Art Shine*, Kadavy, Inc., 2017, Chapter 8 ("The Fortress Fallacy"), Chapter 9 ("Inflating the Investment"), and Chapter 10 ("The Linear Work Distortion").

In the second-round presentations and final essay to come, you are asked to share the current state of your thinking about creativity in general and your creative self in particular. In connection with this, we will shift in this session to discussing two readings on coming to understand our own creative identities and on overcoming obstacles to putting our creativity to work.

In the reading from *The Creative Habit*, Twyla Tharp (she is a famous choreographer) invites us to consider what she calls our own creative DNA. She talks about various qualities. Whether one's observational focal length is long, middle-distance, or close-up is one quality. Another is where one falls on an involvement-detachment spectrum (or if one oscillates back and forth). A third quality is what she calls *zoe* vs. *bios*. Tharp goes on to say that self-examination in these areas can help us advance in our creative activities. Come to class ready to talk about the value (and any limitations) you see in this exercise which Tharp suggests. What other kinds of qualities might you add to her list?

In the reading from *The Heart to Start*, the author describes three obstacles that can get in the way of creative work, and he also offers some thoughts on overcoming these obstacles. What other obstacles -- and techniques for overcoming them -- would you add to his list?

Additional:

c. Ken Robinson, *Out of Our Minds: Learning to be Creative*, Capstone, rev. edition, 2011, Chapter 3 (“The Trouble with Education”). In this book, Ken Robinson, famous for his TED talk “Do schools kill creativity?” (at [https://www.ted.com/talks/ken\\_robinson\\_says\\_schools\\_kill\\_creativity](https://www.ted.com/talks/ken_robinson_says_schools_kill_creativity)), develops this proposition and suggests remedies.

d. Julia Cameron, *The Artist’s Way: A Spiritual Path to Higher Creativity*, TarcherPerigee, 25th Anniversary edition, 2016, pp.9-24 (“The Basic Tools”). This is a classic and influential book which proposes practical steps to undertake in daily life in order to advance our creative endeavors, whatever form they take. The book proposes activities to develop both our internal and our external worlds. On the first, it suggests a commitment to regular stream-of-consciousness writing (the “morning pages”). On the second, it suggests a commitment to regular new experiences (the “artist’s date”).

#### Class #12, April 17th: Second-Round Presentations

See the sections “Second-Round Presentation” and “Final Essay” below, for detailed instructions on preparing these deliverables.

#### Class #13, April 24th: Second-Round Presentations Cont’d.

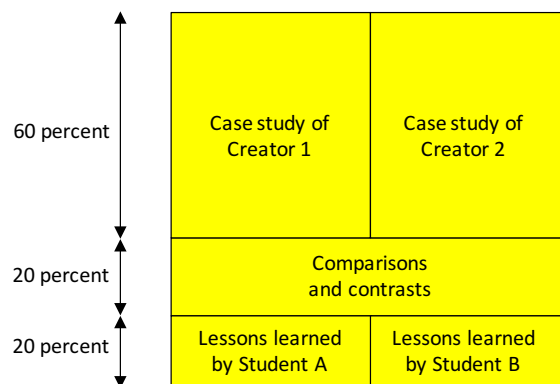
After the presentations, we will spend some time reinforcing expectations about the final essay.

#### Class #14, May 8th: Concluding Thoughts

In our final class session, we will all share thoughts on what the course has taught us and on how we each plan to keep learning.

### **First-Round Presentation**

Your first-round presentation will be a joint activity undertaken by your team. Build a 20-minute presentation which accords with the following template. (For each presentation, there will be 10 minutes scheduled afterwards for audience questions and discussion.)



As you can see from the template, you should devote something over half of your presentation to giving us brief case studies of each of your two creators. (You should divide up this task, and each focus on one of your two creators.) Then, there will be a shorter part of the presentation where, together, you look at your two creators side-by-side and make comparisons and contrasts. The final part of the presentation will consist of what lessons each of you have drawn from your project about your own creative selves.

#### Questions to be Addressed in the First Part of the Presentation

As you put together your case studies, be sure to cover the following sets of questions.

1. For each creator, address the following general questions about the person:
  - a. Was the creator considered by other people to be very smart, or not?
  - b. What were ways in which the creator was curious or exploratory?
  - c. How did the creator exhibit courage or self-doubt (or both)?
  - d. What were the creator's important family, mentor, patron, or other relationships?
  
2. For at least one breakthrough piece of work by your creator, provide a compact visual representation (photo or video or diagram or similar). Then address the following questions:
  - a. What domain or domains of human activity were affected by the breakthrough?
  - b. How was the breakthrough different from what had come before?
  - c. Why was the breakthrough important in relation to existing domains?
  - d. Was the influence of the breakthrough immediate or did its effect take time to develop?
  
3. For the breakthrough piece of work you have chosen, address the following questions about the creator's process and environment:
  - a. What motivated the creator to do the work?
  - b. Was combinatory thinking involved in how the creator achieved his or her breakthrough?
  - c. What did the creator report about his or her own thought processes?
  - d. Were important constraints overcome (or imposed) by the creator in doing the work?
  - e. Was the creator working alone or as part of a group at the time of the breakthrough?
  - f. Was the creator living in a single culture or in a place where cultures met?
  - g. What was the economic and political environment in which the creator was working?

#### Questions to be Addressed in the Second Part of the Presentation

As you conduct your compare-and-contrast exercise, think, in particular, about the following questions.

4. What are the most striking differences between your two creators, concerning their lives?
  
5. What are the most striking differences between your two creators, concerning their work and thinking processes?
  
6. What are the most striking differences between your two creators, concerning the environments in which they worked?
  
7. In light of differences across creators you have uncovered in the course of addressing the preceding three questions, what do you think is the best way to develop a general framework to understand creativity?

#### Questions to be Addressed in the Third Part of the Presentation

This will be the most subjective and personal part of each presentation. You should give a lot of individual thought to this part. Here are some questions to help guide your thinking.

8. What was your perception of your own creative identity at the start of the course?
  
9. Which readings were most challenging of assumptions you had previously held about what creativity is and how it occurs?
  
10. What aspects of the lives, work, processes, and environments of the creators you have studied were most surprising to you?

11. What aspects of their lives, work, processes, and environments were most inspiring to you?

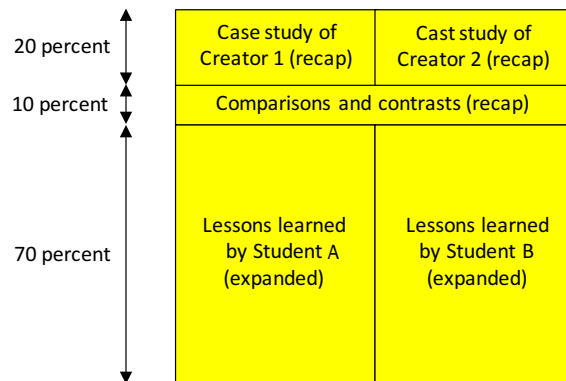
12. How has the course changed your perception of your creative self, and what mental habits, behaviors, and decisions will you adopt, following the course, to continue developing your creative self?

### Accompanying Handouts

You will each produce a handout, as an individual piece of work, to accompany your joint first-round presentation. Your handout will cover your case study of your chosen creator in your team’s creative duo, the joint compare-and-contrast exercise, and your individual lessons learned.

### Second-Round Presentation

Your second-round presentation will a joint activity undertaken by your team. Build a 15-minute presentation which accords with the following template. (For each presentation, there will be 15 minutes scheduled afterwards for audience questions and discussion.)



As you can see from the template, you should begin with a recap — a highly streamlined recap — of the case study of each creator which you put together for your first-round presentation. (The guess is that you will show at most two slides on each of your creators.) Likewise, offer a very brief recap of the comparisons and contrasts you made across your two creators. (Most likely, show one slide on this material.) You should draw here on the work we do together in our feedback sessions on identifying major points from your first round. (But these are your presentations, and you should design what you consider to be the most effective recap.)

The large majority of your second-round presentation should be devoted to sharing the current state of your thinking about creativity in general and your creative self in particular. Describe where your project, put together with the class readings and discussions, has brought you in regard to these issues. Talk here in terms of “before” and “after,” i.e., compare where your thinking was back before the course began with where it is now. Each member of the team should talk to his or her individual journey to date.

### Final Essay

Your final essay is an individual piece of work. Your essay should include your story and analysis of your creator, some brief remarks on what you learned from the comparison with the creator your team partner chose, and then a significant amount on your current state of thinking about creativity (as in the second-round presentation). The expectation is for a 10-page paper. We will not be looking for great length, but for organization and clarity in writing, accuracy and depth in use of concepts, and power and originality in insights offered.