EUREKA!

UNRAVELING THE MYSTERY BEHIND CREATIVITY

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PART 1

INTRODUCTION

TO

CREATIVITY
Introduction to Creativity

For thousands of years people have tried to understand creativity and the creative process. We have striven to unravel the mystery behind the concept and answer a number of pressing questions: Where does creativity come from? What makes creative people creative? Is there any way to be more creative? The number of questions that have arisen around creativity points to the importance that creativity plays in our human lives. We are enamored by individuals who we deem creative; we place them on pedestals because they seem to have a lens into some creative world that eludes the rest of us “non-creatives.”

In this handbook, I will aim to answer some of these questions. In Part I, I will offer a comprehensive definition of creativity that is based on both traditional and contemporary models of creativity and show how perceptions of creativity vary according to the model one chooses to use to understand creativity.

In Part II of this handbook I will apply the “Constraints Model” of creativity to explain the creative processes of individuals producing visual art and literature. My work will focus on the artwork of Edward Hopper and the Abstract Expressionists and the writing of A.S. Byatt, Italo Calvino, Milan Kundera, Annie Dillard and William Carlos Williams.

To further explore how constraints work in literature, I conduct an experiment with my own writing. After writing a personal memoir, I recreate it numerous times using the specific constraints that each of the aforementioned writers worked within. My attempts at writing according to the constraints that Byatt, Calvino, Kundera and Dillard placed upon themselves are featured in Part III of this handbook along with descriptions of my experiences writing within each of the author’s constraints.

Before we go any further, the question that still needs to be answered is: What is Creativity?
What is Creativity?

Simply put, creativity is what happens when an individual produces something that is novel as well as appropriate, generative or influential.¹ You can think of these criteria as different levels on a hierarchy of creativity with novelty being the lowest qualification for creativity and influence being the highest level of creativity. According to this definition, an idea that is novel, appropriate, generative and influential is more creative than an idea that is only novel and appropriate. What do these criteria mean?

Novelty is the characteristic that many of us would provide instinctively if asked to define creativity. In order for something, whether it is a work of art or a piece of literature, to be creative, it has to be new; it has to be something that we have never seen or heard before. However, novelty is not the only qualification for creativity. If it were, any random response to a question would be deemed creative. For example, an individual answering the question “What is 2+2?” with 10 would be considered highly creative since his answer to the simple math question is one that we rarely encounter. That is why any novel product or solution must also be appropriate to the question or task at hand in order to be creative; it must provide an answer to a problem in a way that is useful.

To reach a higher level on the creativity hierarchy a thing should not only be novel and appropriate but also generative. Generative means that this new and appropriate thing leads to the production of more new and appropriate things, products, ideas etc. If something reaches the highest level of creativity, it will also be influential, meaning that it will shape the way that people think about or do things like it in the future.²

To sum up: in order for something to be creative it must meet the initial criteria of novelty and then prove to be appropriate, generative or influential to reach a higher status of creativity.

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² Stokes, 1.
Models of Creativity

In order to understand what really happens when creativity happens we need to look further into the models of creativity: the Psychodynamic Models, the Personality Models, the Psychometric Models, the Problem Solving Models and the Constraints Model of Creativity.

The Psychodynamic Models of Creativity

Psychodynamic Models of creativity are founded on the idea that creativity is an unconscious process. In other words, that creativity involves processes occurring of which the individual is unaware. For a long time the unconscious appeared to be the perfect place for creativity to occur, especially because it helped to explain those moments when it seems like a solution or creative idea springs into the conscious mind out of nowhere. Prominent mathematician Henri Poincare writes about his familiarity with such an experience: “the idea came to me, without anything in my former thoughts seeming to have paved the way for it.”3 If he had not consciously come up with his creative solution to a mathematical problem, it had to be coming from somewhere else, presumably the unconscious.

The unconscious mind allowed for creativity because it was thought to be less rigid and less specialized than the conscious mind.4 It was considered to be less rigid and less specialized because the unconscious was thought to exist so deep within the human brain that it fell outside the realm of the individual’s immediate control. Because unconscious thinking was exempt from the kind of planning and thinking we do consciously, ideas were thought to be freer in the unconscious; free to combine in novel ways that would not make much sense to our strict conscious thought patterns.

Arthur Koestler’s Bisociation Theory of Creativity relies on the unconscious and is rooted in the idea that “solving a problem involves combining thoughts and creative problem solving involves joining novel combinations.”5 Bisociation is the term he uses for the process by which previously

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4 Weisberg, 23.
5 Weisberg, 21.
unrelated thoughts are brought together and combined in new ways.\(^6\) According to Koestler, ideas exist in interrelated sets, or matrices. In normal consciousness, the brain operates through associations, meaning that one thought will trigger another thought that is part of the same idea set. For example, the thought of a flower can trigger the thought of a loved one’s garden because these two concepts are related in memory and exist within the same matrix. The same rules do not apply to unconscious thought because, as Freud asserted, unconscious thought is driven only by the fulfillment of wishes and needs and does not concern itself with the ordinary laws of association or logic.\(^7\) This makes the unconscious a perfect arena for bisociation and creative thinking to occur, as the unconscious is free to combine ideas that are not necessarily part of the same idea set. Koestler also stresses the importance of dreams in creative thinking. For him, the dream state is the ultimate unconscious state in which “all conscious controls on thought are relaxed and one is free of the habitual associative connections that usually work to limit thought to a single matrix,” making the dream state a wonderful arena for creativity to occur.\(^8\)

Like Koestler, Sarnoff Mednick considered much of the creative process to be outside of the immediate control of the individual. He believed that creative thinking was the process of forming associative elements into new combinations which are in some way useful, the more mutually remote these associative elements were, the more creative the process or solution. According to Mednick these remote associative elements were brought together by the unconscious through serendipity, similarity or mediation.

Serendipity refers to the process by which the appearance of stimuli in the environment elicits these associative elements simultaneously. Simply put, this is when something in the environment sparks a eureka moment and everything comes together to form a perfect solution to the problem at hand.\(^9\) According to Mednick remote associative elements could also be brought

\(^6\) Weisberg, 22.
\(^7\) Weisberg, 23.
\(^8\) Weisberg, 23.
together to form a creative solution when the elements are evoked contiguously because of their similarity or because of their similarity to some stimulus in the environment. For example, a writer may discover the perfect word to finish his or her sentence with because the word rhymes with another word that preceded it. The rhyme accounts for the similarity aspect and evokes the perfect word for the writer to use in his work. Finally, the associative elements may be brought together through the mediation of their common elements.

Serendipity, similarity and mediation are all processes that take place outside of the immediate consciousness of the individual attempting to find a creative solution to his problem and have more to do with the separate elements that are being brought together to form a creative thought than the thought processes of the individual. However, Mednick does give some credit to the individual because he explains that the organization of an individual’s associations will influence the probability and speed of attaining a creative solution. An individual who is typically able to come up with many broad associations for any object or idea will be more likely to come up with a creative solution through similarity, serendipity or mediation. The individual is also responsible for identifying when these remote associative elements come together in a useful way.¹⁰

The final psychodynamic model of creativity that we will consider here is the Gestalt Model of Creativity. Gestalt psychologists believed that creative thinking, or productive thinking as they called it, entailed going beyond one’s past experiences to experience every new problem as an independent experience.¹¹ They argued that relying on past experiences to solve a new problem rarely works because the individual gets stuck in familiar and non-productive modes of thinking. Gestalt psychologists asserted that the key to finding a creative or correct solution to a problem was simply the ability to see the problem in the correct way. This is where the unconscious comes in. In the Gestalt view of creativity, the brain will spontaneously restructure a problem so that the individual can perceive it correctly. This occurs outside of the control of the individual and is largely unconscious. Once the problem is correctly perceived by the individual, the solution quickly

¹⁰ Mednick, 225.
¹¹ Weisberg, 37.
becomes apparent.\textsuperscript{12} If the unconscious is doing all of the work, then the conscious mind, and the work of the individual, are playing a very small role in the entire creative process. Many people find this model, and all of the psychodynamic models, of creativity unsettling for this reason; because they give very little credit to the creative individual. Where the Psychodynamic Models of Creativity fail to acknowledge the role of the individual, the Personality Models surely do not.

The Personality Models of Creativity

The Personality Models of Creativity place much more emphasis on the role the individual plays throughout the creative process. In this section, we will explore the ideas of Dennis Garlick who purports that differences in individual brains account for differences in an individual’s ability to process information. Soon I will explain how information processing relates to creativity. We will also look at the work of Sami Abuhamdeh and Mihaly Csikszentmihalyi who dispel the idea that there exists a universal “artistic personality” that will always prove creative and who, instead, support the notion that different personalities will be successful in their creative endeavors across different times and places.

While Garlick does not focus his work explicitly on creativity, his work on neural plasticity has provided me with a better understanding of what accounts for the differences individual creative abilities. Today it is widely accepted that the brain continuously changes throughout an individual’s lifetime. Neural connections, the connections between neurons which allow for the flow of information from one part of the brain to another, constantly develop and change in response to the environment. These neural connections become increasingly complex as an individual moves from child to adulthood, meaning that more and more connections are made allowing for efficient information processing. This ability for the brain to change in response to the environment is called neural plasticity. There are individual differences in neural plasticity since no two brains are exactly the same.\textsuperscript{13} So how does all of this relate to creativity?

\textsuperscript{12} Weisberg, 41.
Differences in neural plasticity, account for differences in information processing abilities, and thus, differences in intelligence. A child whose brain is very good at adapting to the environment will be able to learn more and make connections faster than a child whose brain is less able to change in response to the environment. If we take a minute to think about how this relates to the Koeistler’s Bisociation Model, Mednick’s Remote Association Model and the Gestaltist View of Creativity, the connection between neural plasticity and creativity becomes quite clear. If the unconscious mind is responsible for creating connections between remote or unrelated sets of ideas or for restructuring problems so that we can understand them, it will have a much easier time doing so in a brain that has a vast, complex network of neural connections across which these kinds of connections can be made.

Stepping away from the models we have already discussed, think about how many times you’ve heard the expression “she has a good eye” or “he has perfect pitch.” What these expressions really mean is that the individual has a good brain, a good memory for sound or color. Someone who is able to see color better than someone else, has a brain that is more sensitive, and thus, more adaptive to color. They can only see color better than the person standing next to them because their brain has a complex neural network for color. When we get to the Problem Solving Models of Creativity, it will become even more clear how neural plasticity and efficient information processing account for creativity.

For now, let’s look again at the individual. In their work on creativity, Sami Abuhamdeh and Mihaly Csikszentmihalyi argue that the notion of the artistic personality is more a myth than a reality. However, they also assert that there may be certain personalities that are more suitable for certain times and certain places if the goal of the individual is to achieve success in his or her creative endeavors. Abuhamdeh and Csikszentmihalyi offer a Systems Model of Creativity in which the

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14 Garlick, 188.
individual is one component of an intricate system which also includes the domain and the field. Before we can understand the importance of the individual in this model, we must understand how the Systems Model functions as a whole, we must understand what the domain and the field are.

The domain is any symbolic system that has a set of rules for representing thought and action. For example, music is a domain and various styles of music such as rap and jazz can be considered sub-domains. The domain of music would refer to everything that has happened in music up until that point. Next, the field refers to all of the individuals who act as gatekeepers to the domain. These are the people who have already found success within the domain and now possess the authority to judge whether a work is worthy of being incorporated or accepted into the domain. In the domain of music, the field would include producers, agents, record labels, radio stations etc. Finally, we arrive at the individual. The individual is a person who is knowledgeable about a specific domain and who produces a variation on the domain which will either be accepted or rejected by the field. The diagram below provides a visual representation of how the Systems Model functions.

Individual personality plays a significant role in the Systems Model of Creativity. An individual who is extroverted, lively and whose work reflects that will not do well in a time when the

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17 Abuhamdeh, Sami, and Mihaly Csikszentmihalyi, 33.
field is only accepting work that reflects a more introverted and subdued style.\textsuperscript{18} Abuhamdeh and Csikszentmihalyi also point out that certain personality traits lead to success in creative fields regardless of the prevailing style of the moment. A study run by Abuhamdeh and Csikszentmihalyi found that compared to their less successful peers, successful artists were more sociable, practical and career driven across the board.\textsuperscript{19} If you look at these characteristics closely, it becomes clear that they are not unique to the creative domains but universal characteristics that might be help an individual be successful in any domain.

It is important to note that even those psychologists who take individual personality differences into consideration in their models for creativity make an effort to dispel the myth of the creative genius or the genius in general. According to many psychologists, there is no such thing as a creative genius because 1. Genius is not an internal quality but instead a label assigned to a person by other people 2. What it means to be a genius changes over time and place. For example, Manet who is now considered an artistic genius was ridiculed by critics and the public when his work first appeared on the scene. Finally, there is no such thing as a genius in the way we typically imagine because no human being is creative or productive all the time.\textsuperscript{20}

So far we have explored the Psychodynamic and Personality Models of Creativity. Both of these models may leave you wondering, so that’s it? You or your conscious either has it or you don’t? Do not fear dear reader, because there are plenty of creativity experts who believe that creativity can be taught! This brings us to the Psychometric Model of creativity.

\textbf{Psychometric Model of Creativity}

The Psychometric Model of creativity is based on the idea that creativity is something that can be taught. Those who subscribe to the Psychometric Model of creativity promote the idea that creativity is a matter of divergent thinking, non-rational and free association thinking, which can be

\textsuperscript{18} Abuhamdeh, Sami, and Mihaly Csikszentmihalyi, 36.
\textsuperscript{19} Abuhamdeh, Sami, and Mihaly Csikszentmihalyi, 39.
\textsuperscript{20} Weisberg, 66.
facilitated by brainstorming and followed by convergent thinking to produce creative solutions or ideas.

Creative problem solving, or creativity, involves three main stages: considering the problem, thinking of possible solutions and testing or evaluation those solutions to determine whether they are useful or not. For many of us, the most difficult part of this process is coming up with possible solutions that may be appropriate. Divergent thinking, which again is non-rational free association thinking, will allow an individual to find a creative solution to the problem he or she is facing. According to Edward De Bono, a leading expert in creativity, divergent thinking requires fluency, flexibility and originality on the part of the individual. Fluency means that there is a high probability that the individual will produce a significant idea, flexibility means that the individual will produce a variety of significant ideas that pull information from different knowledge categories and originality means that the individual will produce ideas that are statistically uncommon.

Brainstorming is a method that many supporters of the psychometric model of creativity believe can aid an individual in his or her capacity for divergent thinking. Alex Osborn, another creativity expert, argues that brainstorming is effective because it allows people to unleash their inner-creativity. According to him, we are all more creative than we think but our creativity is stunted because we are too judgmental of our thought processes. Many of our creative ideas never make it out into the world because we pre-judge and reject them before we share them with anybody else. The brainstorming is effective in offsetting this inhibition because the whole goal of brainstorming it to maximize the number of ideas being presented. However, according to Osborn, in order for any group brainstorming session to be successful it must follow these four basic rules:

1. Criticism is ruled out.
2. All ideas, even the wild ones are welcome. The more wild the better because ideas can always be tamed down.
3. The more ideas the better. Every idea that comes to mind should be presented.

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21 Weisberg, 52.
22 Weisberg, 56.
4. Combination and Improvement are sought. Combining your ideas with the ideas of others in your group or improving on an idea that was presented by someone else will allow the entire group to succeed. Psychologist Robert Weisberg disagrees with this point and believes that a more effective strategy would be for every individual to brainstorm separately then meet in a group to discuss. 23

In sum, the Psychometric Model of Creativity is rooted in the idea that creativity can be taught and that creativity is simply a matter of divergent thinking which can be facilitated by brainstorming. Once the brainstorming has taken place and all of the ideas are on the table, the individual can turn to their convergent thinking skills, their rational thinking abilities, to sift through the possibilities to find one that works. Like the Psychometric Model of creativity, the Problem Solving Models of Creativity focus less on the unconscious and personality aspects of the individual and explain creativity as an exercise in problem solving.

The Problem Solving Models of Creativity

The Problem Solving Models of Creativity are rooted in the idea that creativity involves finding novel solutions to problem. All searches for these novel solutions take place in a problem space. 24 The problem space consists of the initial state, the search space and the goal state. The initial state is the representation of the problem or the question that an individual is being asked to answer. It is the problem as it is presented. 25 The next component of the problem space is the search space in which the individual may consider and test various solutions to the problem at hand. The goal state is the final state. The goal state represents the culmination of an individual’s efforts in the search space. It is the answer that the individual has been searching for; it is the creative solution. 26

It is important to note that there exist two types of problems: well structured problems and ill-structured problems. Well structured problems are those in which everything in the problem

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23 Weisberg, 60.
24 Stokes, 4.
25 Stokes, 4.
26 Stokes, 4.
space is specified. An individual knows what the problem is (initial state), what the solution must be (goal state) and guidelines are provided for reaching the goal state (problem space). An example of a well structured problem is a step by step recipe for preparing a delicious meal. All of the ingredients represent the initial state of the problem, the step by step instructions guide the individual through preparing the recipe accounting for the process that takes place within the search space, and the final dish that an individual is working towards, the goal state, is clearly specified at the beginning of the problem with a picture and name of the dish being presented to the individual. While a well structured problem is easy to solve, there is very little room for creativity because there are no unknowns and there is little room for novel solutions because the search space and goal state are defined.

An ill structured problem is the opposite of a well structured problem, providing an individual with little guidance but much room for creativity. In an ill structured problem, the goal state is not clearly defined, and naturally, neither is the search space which guides the individual to a solution. An example of an ill structured problem is your professor telling you that you can write your final paper on any of the topics covered in the class. Aside from knowing that you have to write a final paper that is relevant to the topics you discussed over the course of the year, there is no set goal state or even initial state since the decision about the question you will ask and attempt to answer is entirely up to you. Ill structured problems are more difficult to solve because it is up to the individual to structure their own problem space. They also allow for more creativity, however, because there is room for the individual to ask a question or answer a question in way that is not prescribed.

Psychologist Robert Weisberg’s Incremental Model is one of the original Problem Solving Models of Creativity. According to Weisberg, creative problem solving is a gradual development from initial knowledge to a final goal state. An individual will embark on a problem with some
amount of background knowledge about the domain he or she is hoping to contribute to. In the beginning the individual will have little to no knowledge of what the goal state, or solution, to the problem will look like. This puts the individual into the search space where he or she will think of and test a number of solutions. Some of these solutions will prove to be irrelevant or incorrect and some will be successful, taking the individual one step closer to the final solution. As different options are tested, the search space will become smaller, excluding those solutions that do not work. The goal state will become clearer as the individual comes closer and closer to finding a final solution. Sometimes an individual will have to backtrack into the search space as solutions that seemed correct earlier may prove incorrect as the goal state becomes clearer. Individual personality traits play a part in Weisberg’s Incremental Model as an individual with a high level of motivation will preserve in the face of repeated failure and an individual with a high degree of knowledge about his or her domain will be better prepared for finding domain changing solutions than an individual who is unmotivated and knows little about the domain.

To put it into a perspective, imagine that you are on the hunt to create a perfect recipe for guacamole. Initially, all you have is the knowledge of all the guacamole you’ve ever eaten in your life but you have no idea what it takes to create the perfect guacamole or what that guacamole will taste like. You will enter the search space, testing different ratios of avocado to lime juice and cilantro and everything else delicious that goes into making guacamole. One lime proves to be too much for two avocados so you take it down to only half a lime. Here you think you’ve almost got it, the goal state seems so close when you decide to take the spice up a notch by adding one more jalapeno. All of a sudden you’ve gone too far and the guacamole is far too hot to eat. You will have to backtrack but now the search space has gotten much smaller and all you have left to do is discover the correct amount of jalapeno to add to your almost complete dish. Finally, after gradually making your way towards an unidentified goal state, you’ve made the perfect guacamole and the solution to the problem has become clear! Though this example is oversimplified, it is a real life portrayal of Weisberg’s Incremental Model of Creativity.
Constraint Models of Creativity

Another supporter of the idea that creativity is an activity in creative problem solving, Psychologist Walter R. Reitman, argues that this incremental problem solving technique is a matter of constraints. The attributes defining the original description of the problem can be viewed as the initial constraints within which the individual must work to reach his or her final solution.31 For example, if someone asks you to write a poem, there is at least one immediate constraint: you must put words on paper. For Reitman, every progression away from the initial state, and towards the goal state, is a source of additional constraints which the solutions following it must satisfy because each progression results in increasing particularization about what solutions are appropriate and what the goal state will look like.32 Reitman’s Problem Solving Model is usually called The Constraints Model because externally imposed and self-imposed constraints help the individual to reach a creative solution by narrowing the search space and guiding him or her towards the goal state.

Psychologist and creativity expert Patricia Stokes also sees the path to creativity as one filled with constraints. In her work, she explains how an individual can be creative and expand the domain he or she is working within (remember the Systems Model, for a review see page 9) using paired constraints. The term paired constraints implies that in defining constraints, every constraint will preclude one thing and promote another (usually the opposite of what it is precluding).33 There are four different categories that fall within the domain which can be modified using paired constraints: the source, the goal, the subject and the task.34

When an individual is working within source constraints that means that the individual has chosen to promote those sources who have given him or her inspiration and preclude those sources whose work he or she does not like or support. For example, if I were to write a song I would

32 Reitman, 168.
33 Stokes, 7.
34 Stokes, 32-33.
preclude Justin Bieber and promote Lauryn Hill. Justin Bieber (precluded) and Lauryn Hill (promoted) would be serving as my source constraints. In the same way, goal constraints refer to the final products that the individual wants to promote and preclude. If my goal was to write a fun song that people can dance to, my goal constraints would be to promote writing a pop or dance song and to preclude writing a funeral march or other type of sad song. Subject constraints can help an individual decide what the content of his creative work will be. In my song, I would probably promote dancing and having fun and preclude heartbreak and crying as my subject constraints. This means my song would be about dancing and having fun and not about heartbreak and crying. Finally, task constraints can guide an individual reach his goal by narrowing down the technical steps he will take to reach the final state. In writing my song, I would promote an intense drumbeat and preclude something like the sound of a flute as my task constraints. As a note I would like to clarify that an individual is not bound to promote and preclude just one single thing in each of these four categories. In fact, most people have multiple goal, task, subject and source constraints.

We’ve now come to the end of the creativity models. How do you feel? It’s definitely a lot to take in and as you can see, there are many models of creativity to choose from. It is up to you to decide which model you think is most accurate and most appropriate, however, I would like to mention that the Problem Solving Models and Systems Models of Creativity are wildly considered to be most accurate by psychologists and creativity experts alike.

In the rest of this handbook, I will use Patricia Stokes idea of paired constraints to explore the creative processes of a number of visual artists and writers. For me the paired constraints model never fails, it’s surprising but you can trace virtually any creative process by deciphering the individuals paired constraints! The next section will show you this and once you see it, you will see paired constraints everywhere you look. I will start by looking at constraints in the visual arts and then move on to constraints in literature.
PART 2

CREATIVITY FROM CONSTRAINTS
Creativity from Constraints in Art

The Domain of Art before Edward Hopper

Before Edward Hopper and American Scene painting, the major movement in art was Cubism. The American Scene movement was in large part a reaction to what Cubists were doing. In order to understand Edward Hopper and his constraints, it is important to first take a look at Cubism. The movement was ushered in by Pablo Picasso and Georges Braque in the early 20th Century. The two artists wanted to break away from the established conventions of European Art which in large part was based on realistic representations of the world and objects in it. Cubism was defined by abstraction and by the sense of distorted realism that Cubist artworks evoked. Common objects were dissected and reassembled in untraditional ways. Cubists did not aim to paint objects from a single viewpoint captured at specific moments in time. Instead, they aimed to represent objects from multiple perspectives simultaneously, often painting a single object from several angles in one painting. *Violin and Candlestick* (Figure 1, below), is a fragmented image of a violin and a great example of Braque’s ability to reconstruct objects in novel ways.
Figure 1: *Violin and Candlestick*, Georges Braque 1910

The next image, *Portrait of Dora Maar*, is an example of Picasso’s attempt to portray one object from multiple perspectives. This painting presents a profile and frontal view of the subject; the outline of her face is done from a side view but her two forward facing eyes hint that you are also looking at her head-on from the front.
American Scene Painting and Edward Hopper’s Constraints

Now that we have a better idea of what was going on during Cubism, we can take a look at Hopper and the American Scene Movement to understand how Hopper's constraints allowed him
to move from Cubism to American Scene Painting. First, take a look at Table 1 for an outline of Hopper’s goal, source, subject and task constraints. These will be explained in a moment.

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<th>Preclude</th>
<th>Promote</th>
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<td>Matisse: pastel color palette</td>
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**Table 1: Edward Hopper’s Constraints**

Unlike Cubists, Edward Hopper and other American Scene painters did not wish to distort or abstract reality. In fact, Hopper wanted to preclude abstraction. Encouraged by his teacher, Robert Henri, to paint what interested him the most, Hopper’s goal was to produce realistic paintings that depicted the quiet, individual, and often lonely, American life that he saw all around him. In order to do this, he made quintessential American scenes (American streets, cafes, gas stations, railroads, small cities and towns) and the people who interacted with those scenes the subjects of his paintings. To evoke a sense of loneliness, Hopper painted no more than a few individuals into each of his pieces, usually painting only one lone individual into any given scene. The image that follows, *New York Movie*, is a perfect example of the kind of lonely, contemporary American life Hopper was trying to portray. Although there are plenty of people at the theater, the woman in *New York Movie* stands apart from them – isolated.
Hopper’s use of a dark color palette and intense lighting (stark dark/light contrasts) in *New York Movie* and other works adds a dramatic moody effect to the loneliness and a classical feel to his paintings. We find the same lighting effects in the works of Rembrandt, and the same moodiness in Charles Meryon’s Paris scenes; both artists were sources of inspiration for Hopper. Not only was Hopper able to convey a sense of loneliness through his paintings, he was able to portray a scene realistically. In order to produce works that had an almost photographic quality to them, Hopper painted well structured scenes with smooth curves and flat paint. Some of Hopper’s works are so well structured and geometric that they have been described as having an abstract composition like one of his most famous works, *Nighthawks*, below. Hopper was so talented that he was able to create paintings that were classical and abstract; classical in their lighting effects and abstract in their composition.
Today, *Nighthawks* and other paintings by Edward Hopper continue to be influential. This diner scene served as the inspiration for Ridley Scott’s film *Blade Runner* and was recreated by Dario Argento for his film *Deep Red*. Most famously, Alfred Hitchcock claims that his film *Psycho* was influenced by another one of Hopper’s pieces, *House by the Railroad*. His work was not only a source of inspiration for filmmakers but for other artists as well, including Abstract Expressionist, Mark Rothko. I will now turn to the Abstract Expressionist Movement and attempt to explain how that movement was in part a reaction to the America Scene Movement.

From The American Scene to Abstract Expressionism
Again, before we dive into the shift in constraints that occurred during the move from The American Scene to Abstract Expressionism, take a look at Table 2 below to familiarize yourself with these constraints.

<table>
<thead>
<tr>
<th>Category</th>
<th>Preclude</th>
<th>Promote</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Goal Constraints</strong></td>
<td>Realism/Objectivity Shared Emotions</td>
<td>Abstraction Subjective Expression of Emotion</td>
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<tr>
<td><strong>Source Constraints</strong></td>
<td>Edward Hopper Ernest Lawson John Sloan</td>
<td>Max Ernst David Siquerios Andre Masson Joan Miro Diego Rivera Cubists/Surrealists:</td>
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<tr>
<td><strong>Subject Constraints</strong></td>
<td>American Scenes American Nationalism The Political External Subject Matter</td>
<td>Myth/ The Spiritual Subjective Human Experience: tragedy, the unconscious etc. Paint Itself</td>
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<tr>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Task Constraints</strong></td>
<td>Flat Paint/Local Color Smooth Brushwork Dark/Light Contrast Lighting Traditional Paint application</td>
<td>Thick, Three-dimensional Paint Symbolic Color Unconventional Methods: throwing/dripping paint, laying canvas on the ground Action Painting</td>
</tr>
</tbody>
</table>

**Table 2: Shift in Constraints from American Scene to Abstract Expressionism**

Abstract Expressionism became popular in mainstream America in the 1950s, following the American Scene movement. In many ways Abstract Expressionism was a reaction against the American Scene. Abstract Expressionists felt that the world had seen so much pain, so much chaos during World War II that portraying the world in a quiet, realistic manner was no longer an option. Instead, Abstract Expressionists turned to their subjective emotional states and used art as a release for all of the emotions that were building up inside of them. Their goal was to preclude realism and objectivity and instead paint from the heart, paint their subjective emotional experiences.

In order to do this, Abstract Expressionists developed an entirely new method of painting – action painting became their task. Instead of calmly planning what their end products would look like before they began painting, they focused on the act of painting, on being entirely caught up in the act of painting rather than what the final product would look like. Action painting allowed for
this kind of emotional, improvisational expression of self because it relied on dynamic methods of painting that were quite unconventional such as dripping and throwing paint. Often times Abstract Expressionists laid their canvases on the floor to facilitate this action painting. Because abstraction and subjective expression of experience were two goals of the movement, Abstract Expressionists often used color symbolically to represent a given emotional state.

Though Abstract Expressionists prided themselves on creating art that was entirely abstract, there were some common subject matters such as mythical and spiritual themes, the subjective human experience and the paint itself that appeared in the works of many of the artists. Emphasis on the paint as a subject matter was at the core of many Abstract Expressionist paintings as the paint was used to create beautiful, abstract color and form. In order to get a better understanding of what was happening during the Abstract Expressionist movement we will take a closer look at three of my favorite Abstract Expressionists: Richard Pousette-Dart, Hans Hoffman and Norman Lewis.

**A Closer Look at Abstract Expressionism**

Richard Pousette-Dart was one of the youngest members of the first generation of Abstract Expressionists. He was with the movement from the very beginning and his signature style developed to reflect the constraints of Abstract Expressionism as he and the movement matured and grew together. When he first began painting his work resembled the art that Picasso produced during his African Period. His early works featured totemic images, prehistoric forms and scenes and were imbued with a sense of the spiritual and mythical. Figure 5 below, a painting titled *Head of Antiochus* from the late 1930s, serves as an example of one of these earlier works. Notice how the thick black lines act as borders for the large flat shapes they bind and how the painting is not entirely abstract.
As Pousette-Dart aged and the Abstract Expressionist movement gained momentum, Pousette-Dart continued to use thick black contour lines and primitive themes in his paintings but his images became much more abstract and transformed into ones of pure color, texture and form reflecting the progress of the Abstract Expressionist movement. His paintings also became much more painterly as he used thick paint, often mixed with sand, to add dimension to the canvas he was working on. Figure 6 below serves as an example of a work he produced five years after Head of Antiochus.
Notice how this painting still contains Pousette-Dart’s earlier prehistoric and totemic forms but how these forms have become much more abstract. They are no longer being used to represent bodies or real objects but are instead simply acting as moments of abstract form and color. This reproduction does not do his work justice because it fails to show the emphasis that Pousette-Dart placed on the paint in this painting. When you see this work hanging in a museum, you see that his traditional black contour lines have completely changed because they seem to have been engraved into the canvas, thick with paint. In sum, Pousette-Dart’s signature style reflected the Abstract Expressionist movement because his goal became abstraction, his subject remained the spiritual, the mythical and came to be the paint itself, his sources of inspiration were Cubist painters such as Picasso and he used unconventional methods such as mixing sand into his paint to produce his artwork.35

Hans Hofmann was another, very famous, Abstract Expressionist. His signature styled reflected the Abstract Expressionist movement with its promotion of abstraction, subject matter of paint and reliance on unconventional painting methods. Unlike Pousette-Dart, Hofmann believed that the artists must always stay true to the flatness of his canvas. Instead of using thick paint to create depth, he developed a technique that he called “push and pull.” This technique involved creating the illusion of depth, space and even movement using only color and shape combinations rather than by building up paint or using lines that faded into the distance. For Hofmann, every color expressed a unique emotion. This fit him perfectly into the Abstract Expressionist movement as he used abstract color and form to convey his subjective emotional experience. Like Pousette-Dart, Hofmann was influenced by Cubist painters such as Picasso and Braque. Take a moment to look at Figure 7, Hofmann’s Memoria in Aeternum, below.

Hofmann painted *Memoria in Aeternum* as a tribute to five American painters, one Cubist and four Abstract painters. This painting is a perfect representation of Hofmann’s signature style but also of the entire Abstract Expressionist movement as he purposely included a wide range of techniques used throughout the movement such as stains, drips, drawn-out brushstrokes and smooth geometric forms. The subject matter also fell in line with Abstract Expressionism as it was created as a tribute to the spirits of the lost artists. In sum, Hofmann’s signature style reflected the goal, subject, task and source constraints of the Abstract Expressionist movement. His goal was the abstract portrayal of his subjective emotional experience, his subject was color, form and at times

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spirituality, his sources of inspiration were Cubist painters Picasso and Braque and his technique was quite unconventional relying on dripping, dragging and the use of symbolic color.

The final Abstract Expressionist that I will be discussing here, Norman Lewis, is particularly interesting to me because he often walked the line between Abstract Expressionism and abstract representational painting. When he began working in the early 1930s, Lewis was more of a social realist than anything else. Figure 8 below, Yellow Hat, is an example of his early work.

![Yellow Hat, Norman Lewis 1936](image)

While this work is very far from abstract, notice how Lewis is already beginning to lean towards creating work around very basic geometric patterns and forms. Aside from being a painting of a woman wearing a yellow hat, this work also appears to be a painting of circles, lines and angles. By the 1940s, Norman Lewis has began to paint in a more abstract style and his signature style began to reflect the constraints that Abstract Expressionists were working under. His works moved away from political and social subject matters and towards a representation of his emotional
experience in response to those political and social subject matters. He began to rely on symbolic rather than local color to create his work. Figure 9 below which remains untitled is an example of Lewis’ later work.

Figure 9: *Untitled*, Norman Lewis 1963

Notice how Lewis’ work became entirely abstract by 1963. The subject matter of this painting is solely color and form, even the title lacks any guidance in providing the viewer with an idea of what he or she is looking at because the painting remains untitled. Here Lewis makes a move away from the kind of smooth, flat application of paint we saw with the American Scene painters and towards a sparser, more faded application of paint. Because he was an African American, Lewis was often excluded from the Abstract Expressionist community and the art world in general. However, as time passed he came acknowledged as an Abstract Expressionist because his signature style reflected the constraints of the movement as his goal was the abstract expression of his subjective emotional state, his sources of inspiration were the Cubist painters Picasso and Braque and his method of painting was unconventional as he dissected many of his canvases with very thin vertical lines and relied on action painting to create canvases sparsely covered in symbolic color.
It seems natural that the Abstract Expressionist movement would follow the American Scene movement. Most artistic movements are a response to those that come before them that develop by precluding the characteristics of the preceding movement and replacing them with the opposites or variations of those characteristics. Just as a note, it is no surprise that what followed the Abstract Expressionist movement was the Pop Art Movement. Replacing individuality, emotionality, and painterly paint with reproductions, cool detachment and flat images the Pop Art Movement precluded virtually all of the elements of Abstract Expressionism. Figure 10 below, serves as an example of what was happening during the Pop Art movement after Abstract Expressionism had seen its day.

![Campbell's Soup Cans](image)

**Figure 10: Campbell's Soup Cans, Andy Warhol 1962**

Creativity does not only arise from constraints in the domain of art but in virtually every domain. In the next section, we will explore how constraints have helped foster creativity in the domain of literature by looking at the creative process and creative products of some extraordinary writers.
Creativity from Constraints in Literature

Composition theorist Linda S. Flower and Psychologist John R. Hayes are familiar with the writing process, having devoted their careers to exploring what happens during the writing process and how writers are able to produce the work that they do. Both Flower and Hayes subscribe to the idea that creativity often entails working within constraints and describe the act of writing as simply “the act of juggling a number of simultaneous constraints.”

For them there are three constraints that will help a writer (female in this case) determine her goal state and help shape the process by which she can reach that goal state. These three constraints are knowledge, written speech and the rhetorical problem.

Like me, you might be surprised to see knowledge listed as a constraint; however, Flower and Hayes acknowledge immediately that knowledge is also a resource. It is a resource in that it provides the writer a base from which to begin, without knowledge there would be nothing to write about. Knowledge is a constraint because all writing necessitates that the writer organize and integrate her knowledge in some meaningful, cohesive way before and throughout the writing process. Imagine that you want to write a story about your experiences with the NYC subway system. Before you sit down to write you will think back to all of your experiences on the subway, you will figure out which experiences were the most meaningful and figure out some way to make all of those experiences connect in a cohesive fashion. This is knowledge acting as a constraint because it demands that you sort it out.

Once the writing process actually begins, the writer will continue to juggle the knowledge constraint, deciding where to include certain information and how to transition from one set of information into the next. In doing so, the writer will also have to conform to the constraints put upon her by written language. Written speech acts a constraint because the writer must conform to

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38 Flower and Hayes, 33.
the linguistic conventions of the written language in her writing. She must take into consideration the rules of spelling, grammar and syntax when transforming her knowledge into text. As she gains experience this task will become easier because she will internalize the rules of the written language and she will not have to focus as much of her conscious efforts on remembering the rules of written speech. Think of yourself as a young child just learning to write. Remember how confused you were? Unsure of how words fit together or where to place commas. No doubt this has become easier for all of us as we aged and gained experience with the written language.

Finally, perhaps the biggest constraint that writers have to work with is the rhetorical problem. The writer has to decide what tone, style or structure works best for the knowledge she is attempting to present. Put simply, the rhetorical problem is the problem of deciding how to say what you want to say to the audience you are meaning to say it to in the best way possible. While this is a third constraint, it is also an overarching constraint because it will direct the entire writing process from generating knowledge to transforming it into text.

Every writer will be constrained by her necessity to integrate knowledge, transform it into text and by the rhetorical problem. These three constraints can account for how the writing process works in general but they do not explain how creativity happens in literature. The rich variety of novels, poems, memoirs we have in this world exist because each writer places additional constraints upon herself, she picks her own subject matter, identifies with her own sources of inspiration, sets her own goals and decides what tasks will get her there. We will now take a look at the work of A.S. Byatt, Annie Dillard, Italo Calvino, Milan Kundera, and William Carlos Williams to see how each of the writer’s unique set of constraints resulted in a creative work of literature. I will focus on each

39 Flower and Hayes, 36.
40 Flower and Hayes, 40.
41 Flower and Hayes, 40.
writer separately, exploring his or her goal, source, subject and task constraints, relating the writers
to one another when the opportunity arises

A.S. Byatt

A.S. Byatt is an English writer who has achieved international acclaim for her novels and
short stories. In deciphering Byatt’s constraints I focused on “Sugar” and “Rose-Colored Teacups”,
two stories from her collection Sugar and Other Stories.

When Byatt sets out to write Sugar and Other Stories her goal is to explore the relationship
between truth and fiction. More specifically, her intention is to write about ideas, events and objects
accurately, without her own subjective embellishments about what happened. Even fiction has
become too fictive for Byatt’s taste and she believes that real life events, the reality that surrounds
her could make for just as good a novel as topics that are not rooted in reality. In this way she
promotes truthfulness, accuracy and immediacy and precludes subjective appraisal and fiction as her
goal constraints. She finds inspiration to do so in Iris Murdoch, author and philosopher, who urges
writers to get at “the hard idea of truth” and poet Robert Browning who argues that it is possible for
writers to tell the truth in their works. Iris Murdoch and Robert Browning serve as two of the
sources that Byatt promotes.

In order to get to the truth of the matter, Byatt chooses the mundane occurrences of
everyday life and arrangements of things as her subject matter. She will go on for pages describing a
visit to her grandfather or exactly what the room she is sitting in looks like. For example, she
describes in detail an arrangement sitting on a table, “there was a little kettle, on a trivet, and a
capacious sprigged teapot, a walnut cake, on a plate, slices of malt load…” In this instance she
does not offer exaggerated descriptions but simply paints a picture of the scene she is looking at by

43 Byatt, Passions of the Mind, 18.
44 Byatt, Passions of the Mind, 16-17.
46 Byatt, Sugar and Other Stories, 34.
inspiration, writers William Carlos Williams and Marcel Proust. William Carlos Williams famously said “no ideas but in things,” by simply listing the things in the scene she is adhering to this philosophy. Similarly, Proust said that words can act as “small, bright everyday images like those pictures hung on school walls to give children examples of objects.” In the example provided above, and often throughout her work, every word that Byatt puts down on paper functions as a distinct image.

Her reliance on exact descriptions to portray the world realistically is one of Byatt’s task constraints. In her work she is promoting mimesis, exactness of description and precluding the use of metaphors, which cloud reality, as her task constraints. Mimesis is another term for representing objects exactly as they are which she does through exactness of description. In one instance she describes her mother’s face, “her miserable disappointed face, the mouth set in a down-droop.” It’s that simply, “set in a down-droop,” was all she had to say and the reader can picture exactly what that would look like. She did not have to rely on metaphor or her subjective appraisal of the situation; she simply offered a description that made the entire scene perfectly clear.

Byatt is able to successfully work within her constrains to produce her creative work. However, there are a number of instances in which Byatt mixes reality with fantasy. In her exactness, she is not being truthful because her descriptions are too exact to be accurate. Nobody can remember the details of a table they encountered years ago in their past yet Byatt is able to describe the details in every scene she writes about. This shows the reader that she is less recounting of the matter and more creating a fictitious reality based on her memories. And as hard as she try she cannot escape the metaphor. In “Rose-Colored Teacups,” a rose colored teacup acts as a metaphor for her childhood throughout the story, in “Sugar” she relies on metaphor to describe her

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47 Byatt, Passions of the Mind, 6.
48 Byatt, Sugar and Other Stories, 36.
fathers hair which had “slowly lost its fire.”

Perhaps, it is impossible to be fully accurate unless one is writing about what he or she is experiencing immediately. Still, Byatt offers her reader stories rich with detail which create the allusion of reality, which create for the reader a sense that he or she is reliving the moment.

**Annie Dillard**

Annie Dillard is an American author who has written novels, essays, poetry, prose and a memoir. In her memoir, *An American Childhood*, Dillard calls on the voice of her younger self, writing in plain prose, to give an account of what childhood, and life, was like for somebody growing up in the 1950s. This becomes her goal: to give an account of her individual and family life, her childhood musings and to portray life in 1950s Pennsylvania.

Many of the sources she promotes are those writers who write plainly such as Jorge Luis Borges, Gustave Flaubert and Anton Chekhov. She is also inspired by American traditionalist writers such as John Updike and William Gass. She develops her love for sarcasm by reading Vladimir Nabokov and her ability to connect separate pieces of American life into a single cohesive narrative from James Joyce whose writing was always very collage like. Nabokov and Joyce become two sources that she promotes.

To paint a picture of an American childhood, Dillard makes the family life, sibling relations, the family home, family games and parent dynamics the subjects she promotes in her writing. World War II reappears continuously as one of the subjects in Dillard’s writing, she writes “the war was over. People wanted to settled down, apparently, and calmly blow their way out of years of rationing.” Though the war was over the experience of the war was not, clearly having an impact on the life of anyone growing up in the 1950s. She also tackles more childish topics such as boredom

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describing how sometimes she sang uselessly in the yard.\textsuperscript{50} To evoke a sense of the boredom she, and all children, experience when it rains she mimics the sound of the rain writing “Blither, blither, blither, blither.”\textsuperscript{51} Another subject that reoccurs throughout her writing is the experience a child has of awakening from their childhood ignorance and becoming aware of the grandness of the world. This moment of awakening I am certain we can all relate to, the moment of discovering yourself and the world around you.\textsuperscript{52} Becoming aware that you exist and that you exist within something bigger.

To evoke a sense an American childhood and her experience of 1950s America, Dillard promotes a purely American language and simple/plain writing as her task. To promote the American language she uses American idioms and slang. For example, she writes “he was a couple of bucks in the hole” using distinct American words such as “bucks” and “in the hole” to convey the message that this man was running out of money.\textsuperscript{53} She also makes references to things that were happening in 1950s popular and political culture calling on images of New Orleans and making many references to Jazz, a purely American form of music.\textsuperscript{54}

While she relies heavily on her plain writing style to allude to her childhood, she uses much more intricate and fancy style of writing when she talks about the experience of awakening presumably to point out that the child is entering a more complex state of being. For example, she writes, “They wake up like sleepwalkers, in full stride; they wake like people brought back from cardiac arrest or from drowning: in medias res, surrounded by familiar people and objects, equipped with a hundred skills.”\textsuperscript{55} Notice how complex the sentence is, incorporating many different types of punctuation and a more advanced vocabulary.

\begin{itemize}
\item \textsuperscript{51} Dillard, 289.
\item \textsuperscript{52} Dillard, 282.
\item \textsuperscript{53} Dillard, 279.
\item \textsuperscript{54} Dillard, 277.
\item \textsuperscript{55} Dillard, 281.
\end{itemize}
Annie Dillard successfully meets her goal of representing what childhood and life was like in America in the 1950s, making everyday family life the subject of her work. She draws on many sources of inspiration including Anton Chekhoc, William Gass and Gustave Flaubert to produce a work written in a simple, American language sending the reader back in time into the 1950s and into their own childhoods, whenever they might have been.

Italo Calvino

Italo Calvino is an Italian born writer of short stories and novels. In 1972 Calvino published *Invisible Cities* which quickly became on of his most famous works. His goal in writing *Invisible Cities* was to create an intellectual fantasy to represent the inner workings of his imagination. In the novel, he takes on the voice of a traveler reporting to Kublai Khan and uses his work as an outlet for the images of cities that perpetually build up in his mind. He was inspired by sources such as Nathaniel Hawthorne, Edgar Allen Poe and Charles Dickens, all who wrote fantastic tales. He was also influenced by Henry James who believed that fantastic events could spring from the most ordinary daily occurrences.  

Calvino is able to create an intellectual fantasy by including very complex subject matters in his fantastical work such as memory, desire, and the imagination. He describes memory as “redundant: it repeats signs so that the city can begin to exist.” Part of his task becomes to explore

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the repetitive and skewed nature of memory. He does this by being redundant in his own writing. Take a look at the names of the first chapters of Part I of *Invisible Cities* presented on the next page:

- Cities and memory 1
- Cities and memory 2
- Cities and memory 3
- Cities and desire 1
- Cities and desire 2

Of the first five chapters, three have the word “memory” in the title and the rest have the word “desire” in the title. He does this purposely to point out the back and forth nature, the repetitive nature of memory he attempts to recreate the story of his explorations. Similarly, desire reappears as a title of his chapters and as a subject throughout *Invisible Cities*. He points to his, or the travelers, desire for women often fantasizing about women who bath in pools and who “invite the stranger to disrobe with them.”57 He also talks about desire openly describing the city of “Anastasia” as one “where no desire is lost.”58

Because Calvino writes explicitly about his writing process in “Visibility,” a chapter in a collection titled *Creators in Creating*, his task is clear. Images flood his imagination spontaneously; certain images become prominent constantly reappearing in his mind. Calvino takes these images, conceptualizes them and makes meaning out of them in his writing, allowing him to create such wonderful works as *Invisible Cities*.59

**Milan Kundera**

Milan Kundera is a Czech born writer who was exiled to France by the Communist Regime in 1975. Kundera’s goal in writing *Ignorance*, or really any of his books, is to “rid the novel of the automatism of novelistic techniques.”60 As his goal, he precludes a novel written from a single, dogmatic perspective. Instead, he promotes a novel which presents a plethora of equal voices and

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perspectives and which strays away from the traditional models of what a novel should look like. He promotes the subject constraints of the lives of individuals, exile, ignorance, dreams and political happenings in Ignorance.

He opens by acknowledging Irena’s exile, “‘You mean this isn’t my home anymore?’” Irena asks. Exile, a subject that runs through all of Ignorance, evokes a sense of nostalgia as all those who have been exiled yearn to return to their homes, evokes a sense of longing as all those who have been exiled long for something they had to leave behind.61 He discusses political manners throughout the entire novel. For example, Chapter 3 serves as a brief history of the Czech Republic in the 21st century.62 Not all of Kundera’s themes are so grand as he also takes time to notice the small happenings: a conversation at a bar, a phone call etc.

Kundera does a number of things to create an untraditional novel that offers a harmony of various voices, these are his task constraints. He promotes reflection and the hypothetical rather than definitive statements to avoid falling into one dogmatic voice or idea.63 He also incorporates a number of characters, any of whom can serve as the “main character” at any given moment. For example, Ignorance follows Irena and Josef separately at different moments of the novel. In doing this, he precludes a single voice and a unitary perspective that is typical of most novels. In doing so he promotes one of his sources, Fyodor Dostoyevsky, who often included a polyphony of voices into his own works.

Kundera also promotes dividing his novel in untraditional ways. For example, Chapter 31 of Ignorance is only one and a half pages long while other chapters are longer. Finally, one of the most surprising and wonderful things about Kundera is that he includes styles of writing in his work that are not typically found in a novel. Chapter 2 reads more like an encyclopedia as Kundera traces the

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62 Kundera, Ignorance, 10.
63 Kundera "Dialogue on the Art of Composition,” 78.
origin of the word “nostalgia” and the many ways different cultures have discovered for expressing the idea of nostalgia. Other parts of the novel read more like essays than traditional novels. In this way he precludes tradition style and tone. His inspiration for doing so lies in one of the sources he promotes, Hermann Broch, who often incorporated non-novelistic genres into his novels.

Kundera is successful in his goal of creating a untraditional novel which gives equal weight to various voices. At times Ignorance reads more like an essay or textbook than a novel and while reading, the reader is surprised to find that she is no longer following the life of Irena, who she had been with from the beginning of the text, but has instead moved on to follow the life of Josef who was completely unknown to her at the beginning of the novel. His work is surprising and fascinating and most certainly rids the novel of its automatic novelistic techniques.

**William Carlos Williams**

William Carlos Williams is an American poet who is often associated with the Modernist Literature Movement of the early 20th century. Like many modern poets, Williams wanted to break free from the traditional bounds of Romantic and Victorian age poetry. His goal in writing poetry was to represent the world and objects in the world objectively and to celebrate the ordinary moment. He wanted to preclude vague and allusive representations of the world and tragic portrayals of the modern world because he believed there was beauty and joy present in every simple moment. He shows this in his poem which has commonly become known as “The Red Wheelbarrow” and which will be discussed further in a moment.

In an effort to move away from traditional Romantic and Victorian Age poets, he precluded poets like Ralph Waldo Emerson who relied on traditional meter and rhyme to create their work and promoted poets like Walt Whitman who wrote in free verse, an untraditional form for writing poetry. He also preclude T.S. Eliot’s use of non-English languages and classical culture references because he wanted to create poetry without outside references to high art or classical texts. He wanted his
poetry to be self-contained to represent a moment in time and space. Emerson, Whitman, Eliot all acted as Williams’ source constraints. Take a moment to look at the poem, originally titled simply XXII, now “The Red Wheelbarrow,” below before I discuss how Williams’ subject and task constraints helped him in reaching his goal.

XXII
so much depends
upon
a red wheel
barrow

glazed with rain
water

beside the white
chickens.

When you look at this poem, it is easy to see how Williams uses ordinary events and objects as his subject matter to create poetry that represents the simple moments in life. The stars of this poem are all ordinary objects: a wheelbarrow, white chickens, rainwater. Some scholars have analyzed this poem as being a tribute to vowels. If you read closely, the first stanza is filled with “o” and “u” sounds, the second stanza with “e” sounds, the third with “a” sounds and the fourth with “i” sounds. That would also make vowels one of the subjects that Williams promotes. At the same time Williams precludes subjects such as the political and the historical, making no references to the political atmosphere of his time or to classical texts the way that T.S. Eliot does.

To create a simple poem that acts a tribute to simple moments, Williams works within a number of task constraints. He promotes clear, sharp language and descriptions. He does not use flowery language or metaphors; he talks about things simple, offering very precise pictures of how they appear. In reading his poem, the reader understands that the chickens are white, the
wheelbarrow is glazed with rain and that they are standing beside each other. In using direct language his poem acts as almost a snapshot of the scene he is witnessing.

He precludes what he calls “crude symbolism,” that is using objects as symbols for things to which they have no relation. For example, we have often seen thunder used as a symbol for anger but these two things are actually not related at all and Williams wants to minimize his use of connections that do not exist. He also precludes the use of literary allusions to make sure that his poems are all self-contained. He wants any reader, even the least educated, to be able to understand his work and be affected by it without any additional outside knowledge. In this way, Williams once again promotes his own famous saying, “no ideas but in things.” Every object stands to represent itself in Williams’ work adding to his celebration of the ordinary and to his realistic portrayal of the world around him.
PART 3
A COLLECTION OF MEMOIRS
An Exercise in Creativity: Writing in their Voices

To further my understanding of how constraints help foster creativity I chose to submit my own writing to a little experiment. I decided that the only way I would really understand how constraints work is to work within the limits of constraints myself. I wrote a short personal memoir and then reproduced it multiple times using the constraints of A.S. Byatt, Annie Dillard, Italo Calvino and Milan Kundera. First, I present to you my original memoir.

Original Memoir: In My Voice

When I was ten years old my parents surprised me by bringing home the most adorable Cocker Spaniel puppy. I had been begging them for months, going so far as doing all of my chores in hopes of getting a dog. When I finally got her, I named her Daizy (specifically with a z so as to make the name cooler) and spent the first night of her arrival running back and forth between my bedroom and her sleeping quarters every fifteen minutes to comfort her sad, puppy-weeping. For the next couple of years Daizy was my best friend. Of course I still spent a lot of time with Danielle Galbo, an Italian girl who befriended me before I could speak a word of English, but Daizy quickly made it to the top of my list. She was invited to all of my play dates and I spent hours walking her, brushing her and talking to her everyday. We were inseparable until I started high school.

As a badass high school student, I became too preoccupied with my friends, my boyfriends and my hair to think about Daizy. With so much time spent grooming myself, there was hardly anytime left to groom her. My mother was willing to put up with my teenage antics and became Daizy’s primary caregiver. My dad on the other hand would not stand for it. He believed in the importance of taking responsibilities very seriously and in raising children who believed in the importance of taking responsibilities very seriously. When it was up to him he would force me to come home from hanging out to take Daizy for a walk. “You're ruining my life” I would yell as he threatened a weekend of dish washing and homework unless I came home to walk the dog. He said he knew he was ruining my life and reminded me of my promise to take full care of a dog if I was lucky enough to get one. I would sulk, finally leaving Danielle Galbo and our cute boyfriends behind on my way home to see Daizy. When I’d get there, a few tears streaming down my face, my dad would open the door, give me a hug, place a dog leash in my hands and send me outside with Daizy for a few minutes. As I walked her I would curse the day she was born and tell her she was stupid. Upon finishing our walk, I would come home to a snack prepared by my dad and the three of us would sit eating, laughing and enjoying each others company. Eventually my dad conceded and stopped demanding that I take full care of Daizy. Following in my mom’s foot steps, he became her secondary caregiver.

Although I had abandoned her for a few years, Daizy was still there for me when my dad got sick. I would come home from school to find him sitting paralyzed in his wheelchair with Ivan, his nurse, feeding him a puree of apples, carrots and blueberries, a meal completely unsuitable for a man
his age. I would kiss my dad on the cheek, listen as he let out a muffled chuckle and run to my room with tears escaping my eyes before I could make it to the edge of the bed. Daizy would always follow, laying her tiny head on my shoulder and sitting with me until I had cried all of the tears I could cry. They’re not joking when they say that dog is a man’s best friend.

In the Voice of A.S. Byatt

In an effort to write in the voice of A.S. Byatt, I modified my writing to meet her task and goal constraints. I wanted to portray my life, or at least this portion of my life, accurately and realistically. My subject matter remained the same but my memoir became much more detailed as I used highly descriptive language. To do this, I sat down and consciously worked at remembering every small detail of the story I was telling. I also worked to preclude the use of metaphors replacing metaphors with exact details. After reading the memoir I created in the voice of Byatt, the reader might be left wondering “how does she remember what time it was?” The answer is, that like Byatt’s novel, my memoir leaves the reader wondering how much of my work was recreated from my imagination and how much of it was recreated from memory. My memoir, written in the voice of Byatt appears below.

I sat at the kitchen table, bored, watching the front door to our apartment, waiting for my parents to get back from the dentist appointment they had promised to be home from by 6:30pm. The door was white with a brown frame and a gold doorknob. There were etchings along the door frame marking the heights of boys or girls I never knew who had lived there before I had. It was 7:00pm and I sat, slowly cutting my chicken cutlet into small, perfectly square size bites, dunking those bites into the mound of ketchup I had created on my plate before chewing them, anxiously awaiting my parent’s arrival. It was unlike them to be late. Well, my father did always say that if it was up to my mother they would never make it anywhere on time. She had held them up. Stopped to buy apples, plums, grapes, and oranges at Jimmy’s Fruits and Food on the corner, I thought, when the door finally opened. They had not been to the dentist at all they admitted. They had gone to the pet store. The one near my sister’s house, down in Sheepshead Bay. The one we would sometimes pass. The one my father would let me go in to get a glimpse of the animals before ushering me along on our walk from the car to the boardwalk near the beach. That night my mother held a tiny, golden, Cocker Spaniel puppy that wiggled frantically in an effort to escape the large hands that gripper her right around her tiny belly. This was the dog I had spent months begging for. Doing the dishes daily, folding all of my clean laundry, arranging my books in an orderly fashion every night before bed; at ten years old I had proven that I was responsible enough to care for a pet.
Because she wasn’t trained my mother reserved a space especially for Daizy, blocking off about 5 feet at the end of the hallway and putting down old blankets illustrated with Disney characters on the floor to make it cozy. That first night I spent my time running between my bedroom and Daizy’s sleeping quarters every fifteen minutes. Every time I left her side she would prompt her front paws against the safety fence and let out tiny cries. Her yelps started low getting louder as she reached the end of every howling rotation. She held the last beat of every bark for a few seconds, allowing her voice to quiver ever so slightly creating a sound so sad I could not resist running back to her side. I would sit on Sleeping Beauty or Tinkerbell or The Beast and hold Daizy until she yawned and nuzzled her head into my belly. I remained dedicated to her for many years. In my free time we would take walks along 77th street. It was a beautiful, tree lined block and in the summer it would provide a perfect balance of shade and sun as rays of light shone between the delicate, green branches as they blew in the cool breeze. We would sit on the steps of 1956, my childhood home, and I would brush Daizy until mother called us in for dinner. I considered her my friend and she was always invited to my play dates with Danielle Galbo, my best friend who lived just across the street.

Five years later, I found myself a high school student, too preoccupied with my hair and my boys to care for Daizy the way I had. One day Danielle and I sat on the steps of the library with John and Mike Rizzo as Mike twirled a piece of my straight, brown hair between his fingers. I would giggle at every joke he made and he would smile shyly from the right corner of his mouth when I did. And at such a perfect moment, I would receive a call from my father who expected me to take my responsibilities as a pet owner seriously. My mother was not so strict and spared me a walk around the block with Daizy on the days when I begged to stay out with my friends. My father did not do the same. In a stern, calm voice my father would tell me I had to come home to take the dog for a walk. I would yell that he was ruining my life as I hung up and he would admit that he knew he was. So on days like this, I would hug Mike Rizzo goodbye and he would promise to call later and he would call later and I would walk home angry at my father and cursing the day that Daizy became my dog. After walking her, she would sit with my father and me as we exchanged stories about our days. His stories were always funnier than mine and sometimes they were so funny that I would get a cramp in my side from laughing too hard and I would beg him to stop because I couldn’t breathe but he would always continue, satisfied with his comedic abilities, smiling to expose the wide space between his two front teeth. That space is the thing I remember about him best.

Though I had only pet her, walked her, talked to her rarely in the past some years, Daizy was still there when he got sick. I would come home from school to find him sitting paralyzed in his wheelchair with Ivan, his nurse, feeding him a puree of apples, carrots and blueberries; a meal completely unsuitable for a man his age. It was the only thing he could eat since he lost his ability to chew, and swallow, and smile, and talk. We wondered if he still had the ability to taste. I would kiss his gray cheek which had begun to sink into his thinning skull. I would kiss his gray cheek and he would release a faint sound from the back of his throat and though it sounded more like a raspy cough, I knew it was a chuckle and I would run off to my room before he could see me cry. Daizy
would always follow and she would nuzzle her head into my belly until I had cried all the tears I could cry for the day.

In the Voice of Annie Dillard

Next, I embarked on writing in the voice of Annie Dillard who successfully portrayed what her life as a child in America was like in the 1950s. Her work was very much rooted in what was going on at in 1950s America, so I attempted to incorporate popular culture references about what was going on in America in the 1990s, during my childhood days. Some of the subject matter of my work changed to reflect Dillard’s subject constraints. For example, I tackled my own memories of feeling like I had awakened and incorporated those memories into my memoir. Like Dillard, I attempted to evoke a sense of childhood boredom, wonder and pondering in my writing. To do this I put myself in the mentality of a child, what would a child say about this? I asked myself before putting anything on paper.

The story starts back in 1999, a few months before the new millennium, when everybody in New York City was stocking up on batteries and bottled water. I was ten years old. I sat at the kitchen table playing with the squares of chicken cutlet that I had cut into perfect, bite sized pieces. My legs were finally long so that my feet reached the floor. I sat waiting for my mother and father who were running late from their visit to the dentist. Worried, as I always was when they ran late, I imagined all of the horrible things that might have happened to them. A car accident, I would be an orphan. A wave of terror rose from a pit in my stomach and hit my face, making my cheeks red and my breath short. I would have to move in with my grandmother. This idea became surprisingly appealing as I remembered that my grandmother never bothered me to do my schoolwork. But she was old. The circles around her eyes grew darker with every visit. They scared me.

In the midst of pondering what would become of me, my mother and father opened the door, smiling, unaware of the dark fate I had mapped out for them in my head. Seeing that I was distraught, Mama apologized for being late, kissed me on the forehead and opened her jacket to reveal that they hadn’t been to the dentist at all. They had been to the pet store to buy the puppy I had been begging for for months. The tiny Cocker Spaniel wriggled in my arms and kissed my face. Her fur was soft. It reminded me of the blanket Mama had covered me with when I was a baby and I nuzzled my cheek into her back so that my face could feel the softness against it. Papa stood back watching the happy scene unfold in front of him. The space between his teeth, a dark slit dividing a perfect row of teeth, exposed as he smiled.

Daizy was my first prized possession and I would take her for long walks around the neighborhood flaunting her to all of the other children. Oh, how they loved her! As we passed, they
would push their faces up against the chain link fence, which lined the schoolyard separating them from the adult world where people wore suits and rode to work in mid-sized sedans and didn’t think it hilarious to throw bits of cafeteria food at one another. Skinny arms poked through arm-sized holes, fingers stretched as far as the skin they inhabited would allow just to get one small feel of Daizy’s soft, soft fur. She loved the attention and so did I.

Some days when it rained, Daizy and I worked to discover hidden passages I was sure existed in the darkest corner of the hallway closet. “Now we’re going to knock against this wall and if it sounds hollow we know we’ve found right spot,” I explained to her as she sat wide-eyed, tail wagging, still-tiny across from me in the dark closet corner. Eventually we would hear something thumping towards us from inside the wall and run crying for dear life. In an effort to alleviate my rain induced insanity, Papa would sit me down on the couch and teach me how to play “The Tiny Green Cricket” on his guitar. It was a song that all Russian children knew. Often times, I would doze off as he explained the proper way to strike a G-chord. Papa took the guitar very seriously despite being deaf in one ear. I would wake in time for dinner and eat with the only people I really knew in the world: Mama, Papa, my sister Tanya who was eight years my elder and Daizy.

One day you wake up and find that these people don’t thrill you the way that they used to. You become too serious to lie on the rug giggling as they tickle your belly, too smart to listen to their advice and too adult to listen to your father’s recreations of “The Tiny Green Cricket.” Suddenly, you become aware that the world extends far beyond the warm, two bedroom apartment you’ve inhabited happily until then. You learn that kissing boys and seeing R rated movies is much more exciting than being home in time for Wednesday night leftovers. These are the years when you are more confident than you ever have been or ever will be again as you discover your capacity to think abstractly but fail to understand that you don’t know it all. Or anything at all. I am teenager hear me roar.

Then, suddenly at eighteen years old you find yourself in an unusual and unexpected predicament. Papa is infected. His voice is the first to go so he cannot sing. His fingers continue to work and he can play the guitar. Within weeks, his fingers go, then his arms. His legs are getting weak and Ivan, the nurse, is here fulltime so that he can help Papa walk to the bathroom so that he doesn’t shit himself. Soon, he cannot walk and wears a diaper. This is no way for a grown man to live. Would you even call this a life? His rotting teeth are pulled from his mouth by a dentist who comes to our home. Papa’s gap is gone. Papa is gone.

Though I had become much less excited by Daizy as we grew older, she remained wholeheartedly excited by me. I made the trip from Morningside Heights every weekend that first year and she wagged her tail so ferociously upon my arrival that I feared it might fall off. Even if it had, I imagined it would continue to wiggle. She stayed by my side for as long as I was there. Friday to Sunday. On Sunday, I laid on my mother’s bed with my head on her belly and Daizy’s head on my belly as we talked about my new exciting life in college. The house was much quieter but still warm.
In the Voice of Italo Calvino

Writing in Italo Calvino’s voice proved most difficult for me. His writing is so beautiful, so elegant, so fantastic that I approached this rewrite with special care. Because I wanted to create a fantastical narrative, I inserted moments of fiction, or fantasy, into my memoir. I also precluded writing in first person. When writing in Calvino’s style, my sentences become longer and seemed to flow more elegantly into one another. I also adopted Calvino’s subject matter into my own memoir by discussing memory and desire. Like Calvino, I wanted my writing to evoke a sense of repetition so you will see that certain lines repeat themselves throughout my memoir written in the style of Calvino.

Upon arriving at the doors of the old building one will immediately notice how it glows, despite its age, when the sun comes over from across the city and the old women emerge to sweep the leaves that have fallen on road, one from each house, staring blankly at the other because each has said all that she was given the strength to. Here, there is nothing left but a place of quiet remembering and re-remembering as they sweep the leaves that look too green to have fallen from the treetops. One realizes that the green of a thing can tell us nothing of its age, as lush green leaves with thick veins still pulsing with nature’s life lay on the ground attesting to their own old age.

Atop the brick laid staircase, past the door etched with the heights of children long aged and long gone from the quiet block that marks all that exists and all that will be remembered, sits a lone girl awaiting the arrival of something she fails to know will arrive. She desires the thing but in the moment her knowing the impossibility of acquiring it detracts from her desire and she desires other things that seem possible and close and promising to her.

As the door opens before her eyes she is reminded of her desire for the companion that she has now acquired. A gift that comes with responsibilities, like all things worth having, her tiny, furry companion stares with unknowing eyes at the land that is now hers. And how different the land must look to a creature only six inches from the ground, how each imperfection in the ground must meet her eye exactly and each lush sitting chair appear an impossible climb. But these perceptions change as each companion grows older, as one forgets the other because she has become preoccupied with romance and narcissism and desires for things less familiar than the scar on a father’s face that tucks her into bed each night.

But soon she will long for the scar at every nightfall, when pillows are fluffed for children’s heads to lie on and stories are told of fantastic places where mother, father and children grow old together. Then the companions become companions again and one is reminded that those that are faithful will always return to those who have been less so.

Atop the brick laid staircase, past the door etched with heights of children, lay the two companions as one cries tears for men long gone that are remembered and re-remembered as all
that there was and all that can ever exist but never exist. Some things come to exist more in there absence than they ever could in their presence because we long for them, we attend to them; we recreate them in more detail because they are gone than we ever could when they were here. These are the things that are missed, the images and recreations that haunt the minds of old women who come out to sweep the green leaves from the black pavement.

In the Voice of Milan Kundera

Finally, I rewrote my memoir in the style of Milan Kundera. Like Kundera, I wanted to break free from the traditional forms of writing a memoir. In order to do this, I include a poem into the body of my memoir. I also touched on the subject of exile in my memoir. To include multiple voices in my memoir, I transitioned between my own voice and the voice of my father. I also divided my memoir into distinct sections, each meant to represent a specific time in my life. My memoir, written in the style of Milan Kundera appears below.

1

“But Papa, I want a dog so badly!” Zhanetta whined.
“To want is one thing, to have is another.”
“Oh please, please, please! I’ll do anything.”

They had come to an agreement. She would do all of her chores to prove that she was responsible enough to become the owner of her own dog and he would buy her a dog. The trial was long and seemingly endless when one day Alla and Sasha arrived at home with a dog for their little one. She squealed with delight. What a wonderful day it was!
“I shall call you Daizy,” Zhanetta declared and from that day forth the little Cocker Spaniel came to be known by that name.

Daizy, Daizy you are the best
Better than every puppy
Better than the rest

I love when we play ball outside
And go for hikes and for a ride

You are my puppy and my friend
Together we’ll be until the end
The two companions were inseparable until Zhanetta was old enough to become interested in males. When this happened she spent more time grooming herself than her companion Daizy. Daizy soon lost her bedtime spot next to Zhanetta and was exiled to the livingroom. But Papa was to have none of this. He demanded that Zhanetta continue to care for the dog. Like all totalitarian leaders, he demanded that she cut her own choice of activities short to come home and care for Daizy. Zhanetta forgave him for these demands because he always made her laugh.

When Sasha became sick, he was very aware that he would soon perish. This made him quite sad. He was not sad for himself for he would be dead and his suffering would be but to an end. He was sad for his wife Alla and his daughters Tanya and Zhanetta. They would mourn his loss and the thought of them crying over him deeply saddened him.

When he finally lost his voice and his ability to move, he spent his days listening and sitting instead. This was an interesting experience and he felt as if he had been exiled into his own body. He was completely cut off from the world. Nobody would ever hear his thoughts again, yet, he was still having them.

And do you imagine that you will perish soon?
Yes, yes very soon
And how soon do you imagine that you will perish?
Not quite clear. Very soon. I am feeling less and less of my body
How can I tell them I love them? Please God, tell me, how can I do it?
Please God, can I feel her kiss on my lips one last time. I see her kiss my mouth and I feel nothing.
Oh god! Oh god! Please.
Today is sunny, reminds me of that time last summer we all went to the beach
Just a year ago, beautiful day.
And what a beautiful day it is today, early September
My favorite time of year

Closing Remarks

Writing in the voices of Byatt, Dillard, Calvino and Kundera proved difficult but using their constraints actually made it easier for me to produce something that was creative. Using their constraints allowed me to step outside of my own comfort zone, away from the things I would usually do and find a voice that I had never heard before. I hope that you try this exercise at home on your own, using the constraints I outlined for you in Part 2 of this handbook. Or you can choose one of you own favorites and explore his or her constraints on your own.
The message I would like you to walk away with is that creativity can be facilitated by constraints. Constraints help us narrow the path we will take towards producing a creative final product. Sometimes when you have too many options its impossible to know where to start. Constraints can help you focus yourself and your creative endeavors. I hope that you will walk away having learned something from this handbook. If not, perhaps you can preclude what I did here and create your own guide to creativity!
Bibliography


