

Theories of Creativity: The Significance of the Insignificant. Research Note: Methodological Reflections behind the Scenes

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Abstract

In this research note we describe the development process of the graphic novel *The Significance of the Insignificant*. We provide insights behind the scenes and show the making of decisions on selected problems and their solutions, which accompanied the process of translating creativity theory into a graphic novel. The decisions include the choice of setting, genre, characters, and their appearance, as well as the entire storyline. We conclude the research note by considering methodological issues associated with translating science into a graphic novel.

Keywords: Graphic Novel; Visual Communication; Science Communication; Methodology; Behind-the-Scenes.

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1 Why a Graphic Novel?

The idea of translating theory into images, characters, feelings, and stories has been with us for a while. We asked ourselves, for example, what systems theory would look and feel like if it was a character. How would it interact with another theory like actor-network-theory if they were to meet on a date? We asked ourselves how students would learn theory if we asked them to embody theory and play it out, like in a theater. Can a theory be attractive? Can we learn theory not only by “doing” but also by embodiment and by “being”?

The context from which this interest emerged is our preoccupation with how creative ideas come about in music. We have both done ethnographic research in the music scene over the last four years, resulting in various papers in creativity research (Schiemer et al., 2019; Schiemer, 2021; Duffner, 2020). We eventually came to the format of a graphic novel as a translation of our research results for three specific reasons.

First, we were interested in visualizing theory for our own literature research. We have started to work with metaphors and allegories in our presentations and research diaries to grasp differences and similarities in the creativity literature landscape. A trigger for doing this was the omnipresent definition of creative ideas as “new and useful” (e.g., Amabile, 1983; Mason, 2003; Sawyer, 2006; Runco & Jaeger, 2012; Hutter & Farias, 2017). We envisioned these two central aspects of many creativity definitions as prominent and charismatic actors who had fully conquered and absorbed creativity research.

In the first attempt at visualization in preparation for a conference, the first author used the western movie poster “The Good, The Bad and The Ugly” and transformed it into “The Good, The Novel and The Useful”. This indicated the strong tendency of classical creativity theories to focus on output and performance. We soon realized how visualizations, metaphors, and allegories helped us understand our theories and present them in an inspiring way. Additionally, it seemed useful for teaching students. Usually, our research system’s result is the production of a text in which metaphors and allegories are consolidated. However, the choice of using images and visualization to condense an understanding and a reconstruction of a theoretical research theme opened up new avenues for discussing theory in class.

Second, in our research in music, we began to be more interested in mechanisms of creative processes that are not recognized as significant at first glance. We were particularly interested in (temporary) incompleteness of interim outcomes in an online songwriting community and temporal structuring of creative processes in the music studio (Schiemer et al., 2019; Schiemer, 2021), as well as in trivial objects in the production of electronic music (Duffner, 2020). “Temporary incompleteness” stimulates ongoing examinations and engagement. “Afforded meantimes” are temporal structures created by the materiality-at-hand in creative work that takes time to unfold, progress, and warm-up, resulting in time windows within which things can (but do not have to) happen in the meantime. And finally, a “trivial object” such as a push-button, for example, carries the potential to provoke complexity, uncertainty, and complications and can therefore always induce problems or surprising twists. However, these mechanisms and practices do not always produce creative results that are new and valuable. Likewise, they can simply have a generative effect and thus lead to various unpredictable possibilities or obstacles.

The theoretical building blocks developed from this empirical work could be easily translated into metaphors and characters that contrasted with some conventional performance-oriented definitions of creativity. Up until that point, we had only worked on visualizations occasionally to entertain and improve our presentations. This was until, third, two opportunities emerged. One was the call to contribute to an exhibition on art, technology,

and society at our university. We resorted to a comic artist with whom the first author had already worked several times, and we developed the first ideas for character sketches in our application. The second opportunity came from a conversation with David Stark during a break at a conference in Berlin in 2019, where he made us aware that the journal *Sociologica* was willing to publish unconventional formats. One of our colleagues¹ asked if this would include a graphic novel. These prospects motivated us to take the project seriously, and we began working on the present graphic novel.

It was a playful but also a tricky task to tie all the ideas, thoughts, and theories together to create a fictional story. In the following, we will reflect on some of the many problems and solutions in the translation process, including some of the storyboard sketches that reflect our own creative process.

2 Development of the Storyline

We set out to oppose conventional creativity theory as ideas emerging from effective mechanisms, with the somewhat less effective (and less easily identifiable) mechanisms we had found in our research. Usually, creativity research means searching for the origins and conditions for the emergence of new and useful ideas, products, problem solutions, and so on (e.g., Runco & Jaeger, 2012; Amabile et al., 1996; Zhou & Shalley, 2007). Due to the upgrading of creative work emerging from the creative industries in all areas of life (Reckwitz, 2017), there is great interest in what is necessary to develop creative ideas quickly and efficiently. The one comprehensive explanation has not yet been found. Explanatory models range from the optimal work environment (e.g., Amabile et al., 1996), the optimal team composition and group dynamics (e.g., Paulus & Nijstad, 2003), the right network position (e.g., Uzzi & Spiro, 2005; Lingo & O'Mahoney, 2010), the right mix of necessity and freedom (e.g., Ortmann & Sydow, 2018), boredom and excitement (e.g., Csikszentmihalyi, 1997), the relationship between people and artifacts (e.g., Tanggaard, 2013), to think the right way (e.g., Runco & Acar, 2012), to associate or to bisociate (e.g., Koestler, 1964).

We could not fully capture this overwhelming number of theoretical contributions that all aim to explain creativity in our graphic novel. So, we decided to oppose what we perceived as “common definitions and explanations of creativity” with less significant but still essential mechanisms that we found in our research. Thereby, we were inspired by the writings of, for example, Joas (1996) or Tanggaard (2013). They both conceive creativity as more based on everyday phenomena than on extraordinary accomplishments.

With that (limitation) in mind, the first thing we did together with the comic book artist was to imagine a setting in which the mechanisms we found in our research could meet like protagonists with antagonists as concepts from standard creativity theory. Several genres came into mind: a western, a zombie story, a science fiction story, and finally, a superhero story. The idea for superheroes and antiheroes on a planet in the universe gave us the greatest possible freedom to package complex theories into characters and storytelling.

The first problem, however, was how the whole story should start. We needed something extraordinary that would disrupt the “natural course of things” in our setting and get the story going. After moving the setting from a city to a country and finally to a planet, the idea that creativity is responsible for the expansion of the universe came to us. This idea went well with our setting and also reflected the notion that creativity, in one way or another, leads to growth and

1. We thank Tobias Theel for the first inspiring discussions on the subject of science and graphic novels in Berlin.

expansion (Florida, 2005; Schumpeter, 1942; and also — more critically — Reckwitz, 2017). We decided that the idea of “the universe stopped expanding” was the right hook to start our story.

The second problem was creating a coherent relationship between our two opposing groups. We found our heroes (common creativity theory) placed in the center of the literature’s theoretical landscape and the antiheroes (the incomplete, the meantime, and the trivial object) as located on the periphery. Hence, we decided to place the former in a luxury hotel and the latter in a faraway junkyard. However, locating the central characters in their own little worlds made it difficult to tie them together. We needed one or more central protagonists who could be “followed with the camera,” as our comic book artist put it. This was additionally important for him so that he would then be able to translate our story into single pictures. We finally added a group of envoys as an auxiliary construction, initially intended as secondary actors they had become central protagonists by the time the first version was finished. Their search for characters who produce ideas reminded us strongly of practices in the scientific field. We decided to let them be researchers who act exaggeratedly in the area of tension between public interest and the expectations and obligations of the scientific field, whereby their own (career-related) interests always play a role. Thus, they are under constant pressure for publication. With this shift in the storyline, the graphic novel became an allegory of our own research journey.

The third problem finally was to select specific characters from the creativity literature. Since we simply had not enough space for a substantial overview of the creativity literature, we decided to portray single representative approaches. They should stand for the general definition of creativity (novel, useful, beautiful), for psychological perspectives, for example, Csikszentmihalyi’s (1997) “Flow,” for network perspectives, for example, Vedres and Stark’s (2010) “Structural Fold,” for management perspectives, for example, Hargadon and Bechky’s (2006) “Collective Creativity,” and so on. Our aim here was not to differentiate these common theories among each other but rather to oppose the whole group of significant concepts (without the claim of completeness) with our apparently less significant mechanisms. After having decided what characters we want to have in our comic, we started our translation process.

3 Selection and Development of Characters. Representative and Performative Properties

The question of how to translate theory into characters of a graphic novel led to long and exhausting discussions and trial and error procedures. We started with opposing characters. On the one hand, we chose the novel, useful and beautiful as our heroes. On the other hand, we chose the less significant mechanisms from our research, the incomplete, the meantime, and the trivial as antiheroes. Based on the work on the first sketches and the storyboard, two groups of three “translation options” each emerged. We were able to translate theory into characters of the graphic novel in a *representative* manner through (1) their visual appearance, (2) their superpowers, and (3) their (double-) name; or in a *performative* manner through (4) their activities (including relationships with others), (5) their dialogues (syntax and semantics), and finally (6) through the use of camera angle and positioning of characters on a panel. The idea of adding a superpower and individual names as well as the camera angle and positioning came at a later point in the development of our story when we were reflecting on the storyboard (example, see below). Eventually, we ended up with three groups of characters.

The first group embodied what we perceived as common elements from creativity theories (the novel, useful, and beautiful). We gave them dialogues and activities in addition to their visual appearance, to (performatively) point at the theory from which they were developed.

The second group of characters, the “other heroes,” represented some common perspectives on creativity, such as psychology, network theory, and management studies. We decided to represent those characters only by visual appearance, names, and a short dialogue about their superpowers, but not by letting them interact with each other. This choice had practical reasons since we needed a consistent storyline and did not want to emphasize single theories. Also, this reflects the research landscape in which some of these theories rarely “meet and interact” with one another. Often it is different glasses that are closely tied to disciplinary boundaries with which the phenomenon of creativity is looked at.

The third group finally consisted of our own theories on creativity. Again, this group acted in a performative manner to transport as much of our theoretical considerations into the story as possible to oppose them with the other groups.

4 Examples for Scene Development

In the following, we will present two examples of our discussions and the solutions from which our characters, situated in scenes, emerged.

Example 1: Scenes in the Hotel (Room and Lobby)

We translated common creativity theory into the “Original Noveller” and “Valuable Usefuller” in the scenes inside the hotel mainly by using “activities” and “dialogue” as translation options. As in the literature (e.g., Amabile, 1983; Mason, 2003; Sawyer, 2006; Runco & Jaeger, 2012) they always appear as a pair. We designed the “Original Noveller” as a curious and capricious character. He claims that he is operating on the verge of the unknown, unseen and unheard, which he emphasizes with his statement: “Have you ever heard of it before?” for example. In contrast, the “Valuable Usefuller” appears to us as calmer, conservative, and mindful of the benefits. This should become visible in his rather stiff posture in the hotel room scene. Statements like “Worthless kitsch” or “It’s about the wellbeing of all of us” indicate his constant focus on the useful.

To create a narrative symmetry among the three antiheroes, we added the “Exciting Beautifuler” as a third superhero-character. For this character, we were inspired by “The Invention of Creativity” (Reckwitz, 2017). Reckwitz emphasizes the aesthetically stimulating as the superior driving force behind the creative process in postmodern society. In research on creativity outside German-speaking sociology, Reckwitz’s diagnosis is rarely cited. Therefore, we decided to present “the Beautifuler” and the “Noveller” and “Usefuller” as if they had a strained relationship. The aversion to the “Beautifuler” — who perceives himself as more important than the others — is expressed, e.g., in the statement “Is Mister Wonderful the Exciting but useless Beautifuler coming, too? I can’t stand this arrogant figure.” Despite such antipathy, the superheroes work together in the hearing, as both literature strands contribute to creativity research.

The three stars have in common that they seem particularly important at first glance because they can make ideas more meaningful and relevant. Their presence, therefore, creates attention and relevance, which is why we let them feel comfortable in the crowd of photographers. Their superpower is a non-physical defining force, which is powerful. However, its execution seems rather dull and arbitrary (which we translate into obscure finger and body movements), especially when you want to know how ideas come about.

Example 2: The Other Heroes

In our first idea, we just wanted to present a story about the three superheroes who are confronted with three antiheroes. However, as the story unfolded, it became clear that we could never fully encompass the rich and well-established literature on creativity research with this selection of characters. We needed a group of characters that represented theories for idea generation besides our main characters. To solve this problem without using up too much space, we came up with the idea of a list on which theoretical concepts are represented as names of other superheroes, followed by four short scenes. This step made us aware of the possibilities offered by the conscious choice and composition of names to relate our characters to the literature. We recognized that some concepts in the literature are made up of two words. In cases such as the “Intrinsic Motivator” (referring to Amabile, 1993) or “Enabling Constrainer” (referring to, e.g., Ortmann & Sydow, 2018), these two-word combinations suggest a vivid idea of the theoretical concepts. We liked this descriptive possibility. To maintain symmetry among the actors’ names, we decided to give all the heroes and the three antiheroes a double name to provide a richer metaphorical association with the underlying theories.

The scientists’ visit to four of our “other heroes” was a complicated process, full of discussions, to create suitable allegories. In the development process, it became clear step-by-step that a particular combination of the heroes’ appearance, their superpowers, and the words spoken was necessary to depict the theoretical concept, as we will show in one example.

The image for the theory of Hargadon and Bechky (2006), for example, the “Creative Collectivizer”, caused us many difficulties due to the complexity of the concept. In a first attempt, we thought about portraying this superhero as the programmer of a date matching platform. The metaphor of the “match” seemed suitable to depict the successful combination of help-seeking and help-giving practices. In our discussion, however, we found that the image appeared too encrypted and only reflected a fraction of the theoretical concept. The question that arose for us was how the theoretical aspects of “reflective reframing” and “reinforcing” (Hargadon & Bechky, 2006, pp. 491–494) could be integrated. Moreover, we also wanted to add the super-individual or collective level of creative practices to the picture since it plays a central role in this theory. As a solution to the collective image, we thought that the superhero’s body should be composed of many individual actors. While the superhero’s body appearance (and the name) provides an adequate visualization of collectivity, we were still struggling with other parts of the theory. For reflective reframing, we discussed various actions in which a frame appears like a picture frame. This also gave rise to the idea that the “Collectivizer” would shoot energy beams or paint from his fingers, which formed a frame around a group of small people. However, these images seemed a bit incoherent to us. The abstract concept of “reinforcing” could not even be translated into a suitable picture. The idea with the energy beams seemed to offer us some leeway, typical of superhero stories, to bring complex theories into a picture. However, ultimately, energy beams as symbols of the influence of power can stand for anything. The superhero should therefore shoot energy beams in front of moving people in the form of question marks. However, this gave rise to the problem that the picture was now difficult to relate to the theory. After a lengthy discussion, we came up with using the dialogue with the scientist to translate more significant parts of the theory. Through the statement, “It’s always about seeking and giving help. The only way is to make ideas a collective establishment. If you do not need help, but you already have a certain idea from somewhere, reframe the question.” Let me just reinforce that the “Collectivizer” is intended to give a sense of the theory. In this way, we established a reference to the theory on a semantic level. This solution dilutes some problems of the visualization without restricting the scope for interpretation too much. Therefore, we applied this semantic support to the other superhero dialogue.

5 Translation Process: Storyboard

After we finished our screenplay in an intermediary step (example screenplay for the hotel lobby scene, see Appendix A), the comic book artist developed a storyboard (example storyboard for the hotel lobby scene, see Appendix B) for further discussions. In a meeting that we recorded and analyzed for reflecting on our process, he presented us the full storyboard in which he had split up all the scenes onto single pages. Meanwhile, his presentation of the following situation occurred when we became aware that we could use “camera angle” as another possibility for our translation of theory into performative characters. The artist showed us this sketch from the storyboard, from a situation in the hotel lobby.

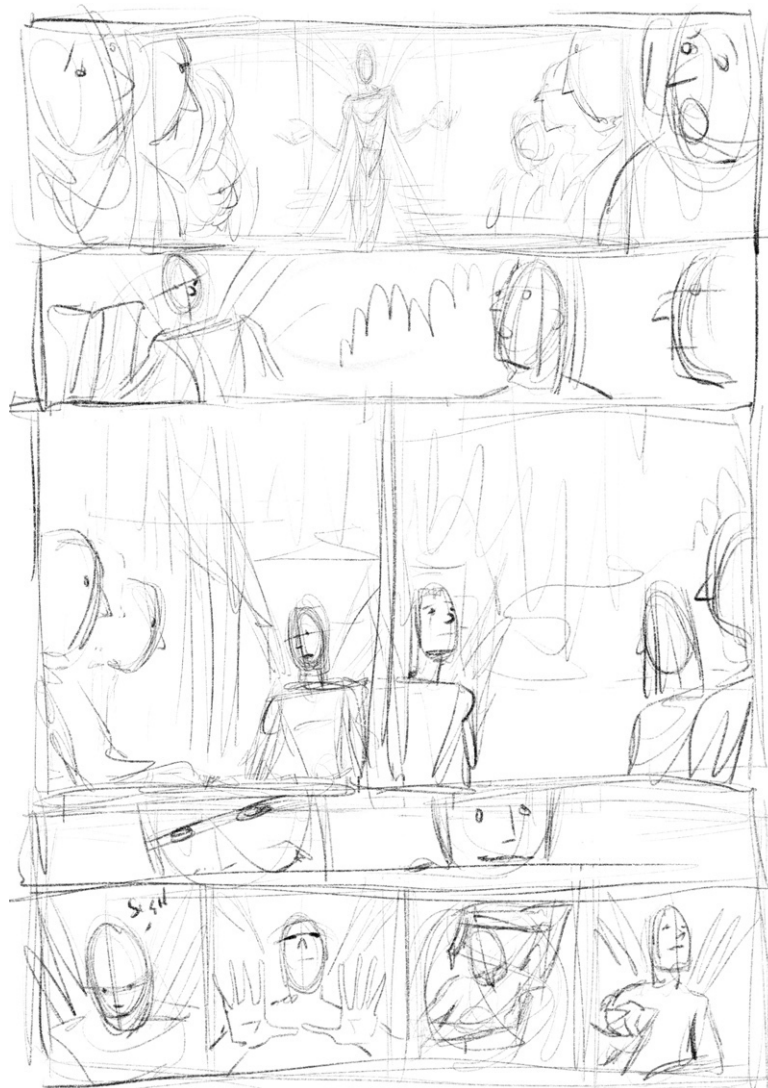


Figure 1: Storyboard. Hotel Lobby

Showing us this page, which is the scene where the “Beautifuller” talks to the scientists in the hotel lobby, the artist explained to us that he could use the camera angle to make the “Beautifuller” talk differently to his kind, to the other heroes, and to the scientists. He pointed at the third row of panels in Figure 1 and explained:

Artist: In this panel, this is where the Beautifuller is talking to the two other heroes. And with the facial expressions and the angle of the camera, it's like he is talking to equals, and in the next one, he is only talking to the scientists. So I really just like shifted the camera over instead of making it a whole new angle; that way, it's kind of like you see how a hero talks to other heroes, and then directly how a hero is talking to other people. That way, we can make clear how arrogant this figure is. (recorded meeting)

Thereby, he explained to us; we were able to show with this direct shift of the camera how the group of the heroes belonged together and were somehow arrogant and different from ordinary people. Using the camera angle for direct comparison was an idea by the artist that he used in other scenes. In it, characters appeared stronger and more powerful when the camera angle was from the bottom up and weaker when the other way around.

In the discussion of the storyboard, we also realized that we had to shorten our dialogues. As researchers, we were used to transferring theory in text. However, the space on a panel for dialogues to “keep the story interesting” was way less than we expected. Hence, we decided to let the artist go through all the dialogue and give us a word limit for each situation for reworking our script.

6 Conclusion. Illustration vs. Graphic Novel

The format of a graphic novel provides a new angle from which to approach theoretical thinking. The attractive but also the problematic aspect of this is that the pictorial story not only integrates but also encrypts our perspective. The translation creates ambiguity and therefore opens up new perspectives and increases the scope of interpretation. When we were rereading the screenplay several times, we noticed, for example, that some plots seem to fit certain theoretical concepts perfectly, by chance, and other plots said even more about the concept than we had initially planned to say. Therefore, the greatest challenge in the development was to keep the ambiguity for interpretation in balance and create adequate pictures that could be used to provoke discussion for knowledge transfer.

In the course of our collaboration with the comic artist, it also became increasingly clear what the difference is between illustrating a theoretical idea and telling a graphic story. “The story is only interesting to look at”, the artist explained to us in a meeting, “if it is emotional and transports emotions”. In another meeting he explained: “A graphic story can only be conveyed through emotions, not through concepts”. This created a field of tension between the communication of theory and the representation of emotions, which the artist sought to resolve by “working out the atmosphere, that feels a certain way”. To do this, he worked extensively on the backgrounds of the individual scenes against which our actions took place. Something that was not elaborated in our screenplay.

In contrast to an infographic or an illustration, a graphic novel does not have to reveal everything but takes the reader into an emotional journey. Many things remain encrypted, and the reader is given the task of interpreting. If a reader is informed about the creativity theory, she or he can decipher the comic differently than an uninformed reader. However, an uninformed reader can still access the same parts of the comic and decipher them on individually significant levels, even if this ultimately means “just” reading a humorous, emotional, and interestingly illustrated story.

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Appendix A

This is an excerpt from the screenplay that includes the hotel lobby scene.

1. INT. LUXURIOUS APARTMENT: THE NOVEL AND THE USEFUL. We are in an exquisite and expensive hotel apartment. It's big and the decor is luxurious. The Original Noveler and the Valuable Usefuller hang out there. They both look androgynous; hence it cannot be determined whether they are female or male. The Original Noveler is busy, always trying things out and is very decadent. The Valuable Usefuller is elegant, distant and rather calm — a conservative snob. Both are conceited, beautiful, and arrogant. The Valuable Usefuller sits stiffly on a wing chair and drinks a glass of cognac. The Original Noveler stands in front of the mirror and has just hung up the phone very excitedly. Like all superheroes on the planet, both have something special about their bodies. For example, there are parts of the Original Noveler's limbs made of stars.

ORIGINAL NOVELER

(looks in the mirror as he speaks)

Get ready, there are ambassadors waiting for us from the council. We've never had that before. Might be interesting.

VALUABLE USEFULLER

(Grandfatherly on the wing chair, with a raised eyebrow)

I thought they would come. This is very dramatic, potentially untrue. We've had as many useful and valuable ideas as always, honestly.

2. Different angle.

ORIGINAL NOVELER

(looking thoughtfully to the ceiling)

Strange indeed. I've had many radically new ideas lately, plus all of the incrementally new ideas² ... Anyway, come on let's go, I'm excited what they want.

VALUABLE USEFULLER

(slowly rises from the wing chair, ironically)

Is Mister Wonderful the Exciting but useless Beautifuller coming too? I can't stand that arrogant figure. Worthless Kitsch.

ORIGINAL NOVELER

As far as I know, they invited the pretty pet too.

3. INT. HOTEL LOBBY. We are in the hotel lobby. It's a luxury hotel. Large, shiny chandeliers hang from the ceilings, and expensive velvet curtains over the windows. Reporters are everywhere. They want to take photos of the stars and get an exclusive interview. We see the team of scholars sitting at a table with the two stars who care more about the photographers than about their visit. They are just about to sit down at the table.

2. See Ettlíe et al. (1984) for radical and incremental innovation.

MAN MIT MONOCULE

(looks around worried)

Can't we go somewhere else? Somewhere less busy?

VALUABLE USEFULLER

(waves away)

But why? It's wonderful here.

ORIGINAL NOVELER

(grins into a camera behind the scholars)

Agreed. It's perfect for a consultation. What do you want to know? And where is the Exciting Beautifuller? Didn't it want to come?

4. The heroes take their seats. The Valuable Usefuller rolls its eyes.

MAN IN LAB COAT

(stressed)

It should be here soon. In any case, thank you for your time. Being the most famous and best superheroes in our universe, surely you can help us.

VALUABLE USEFULLER

(waves arrogantly and smiles)

It's about the wellbeing of all of us, isn't it?

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1. Enter the Exciting Beautifuller. A tall, beautiful figure adorned with feathers (perhaps like a peacock?) enters the lobby and makes its way through the reporters to the table. Maybe parts of its figure are actually made of feathers, or parts of its body are like works of art. Like the other characters, it is androgynous.

It sits down at the table.

EXCITING BEAUTIFULLER

I'm sorry honeys, I still had work to do. What are these beautiful things you want to ask me?

2. Different angle.

WOMAN WITH BRIEFCASE

(hastily unpacks a piece of paper from her briefcase)

Thank you... let's start. As you've all heard by now, the universe has potentially stopped expanding. In our examination, we are unable to debunk the rumor yet.

(New speech bubble) We cannot rule out the worst-case scenario: Too few ideas are being produced. Let's just ask straight out: Are there any problems with the-

3. The woman cannot finish her sentence, the Exciting Beautifuller interrupts her indignantly.

EXCITING BEAUTIFULLER

You're kidding! I've had intense ideas lately with levels of stimulation and excitement beyond the real. Some even say that my powers aestheticize society as a whole³!

ORIGINAL NOVELER

(snorts contemptuously)

That just can't be right. We too were productive like never before.

VALUABLE USEFULLER

Totally mind-boggling presumption that is.

4. Different angle.

WOMAN WITH BINOCULARS

(apologetic, intimidated, takes off her baseball cap)

Sorry, we have to assume the worst. What has been your situation recently with the creation of ideas? How did you proceed? What happened?

VALUABLE USEFULLER

(precocious, leans across the table)

My dearest lady, we have superpowers. How do you think we proceeded? We created for the sake of our forces!

MAN IN LAB COAT

Please don't get us wrong, but can you prove it so we can testify that nothing is wrong? We will quote verbatim.

USEFUL VALUABLER

(snorts contemptuously)

A demonstration?!

5. Different angle.

ORIGINAL NOVELER

(appeasing)

It's ok U-Val. We will do just that.

EXCITING BEAUTIFULLER

(leans forward and smiles)

Now we get to see something!

6. The Original Noveler sighs, nods,

7. leans back and spreads its fingers. Nothing really happens.

8. In a strange movement it whips its arm back and forth, turning its eyes upwards. Everyone is watching with interest (shown in mirror behind Noveler).

9. When it is finished, it raises its eyebrows, satisfied and questioning.

ORIGINAL NOVELER

Now? OK then?

3. See Reckwitz (2017).

Appendix B

This is an excerpt from the storyboard that includes the hotel lobby scene.



Figure 2

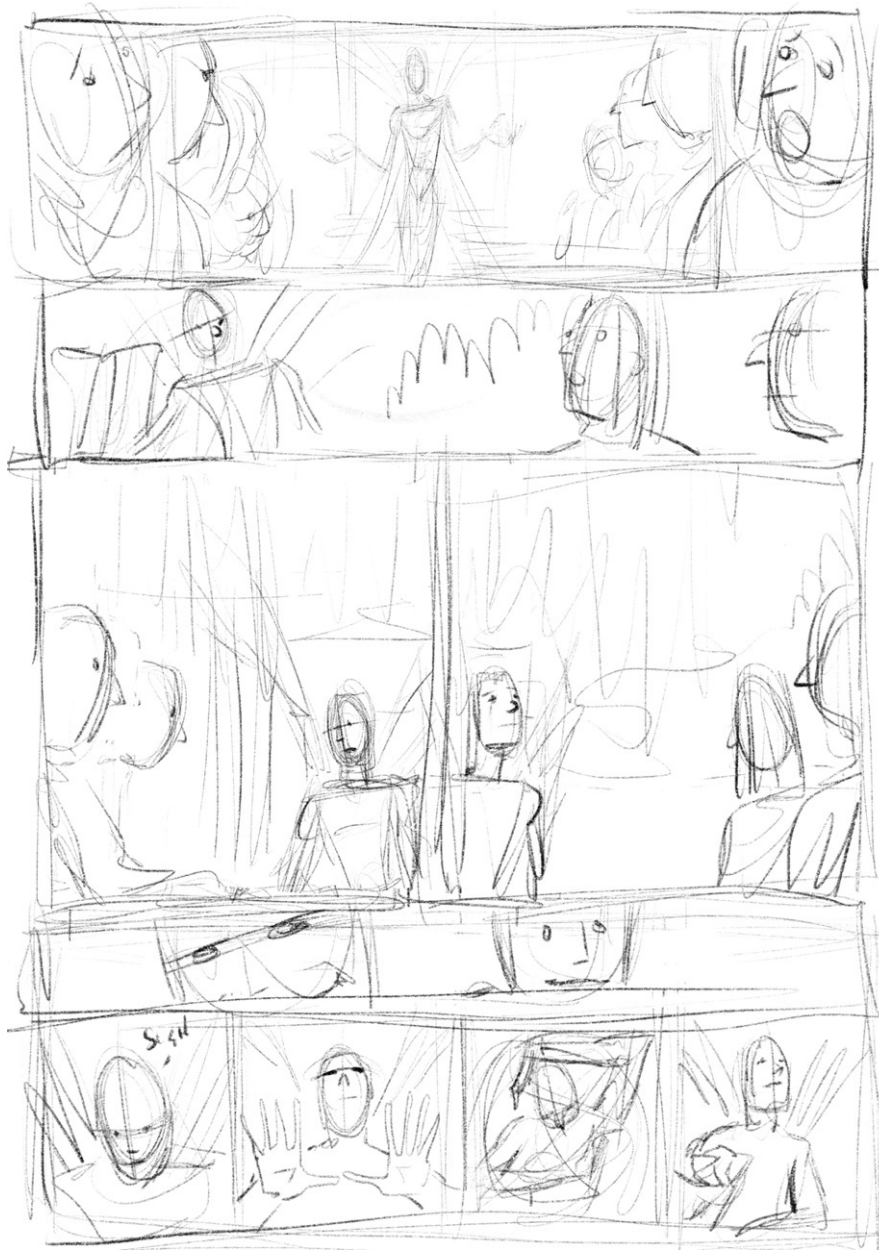


Figure 3

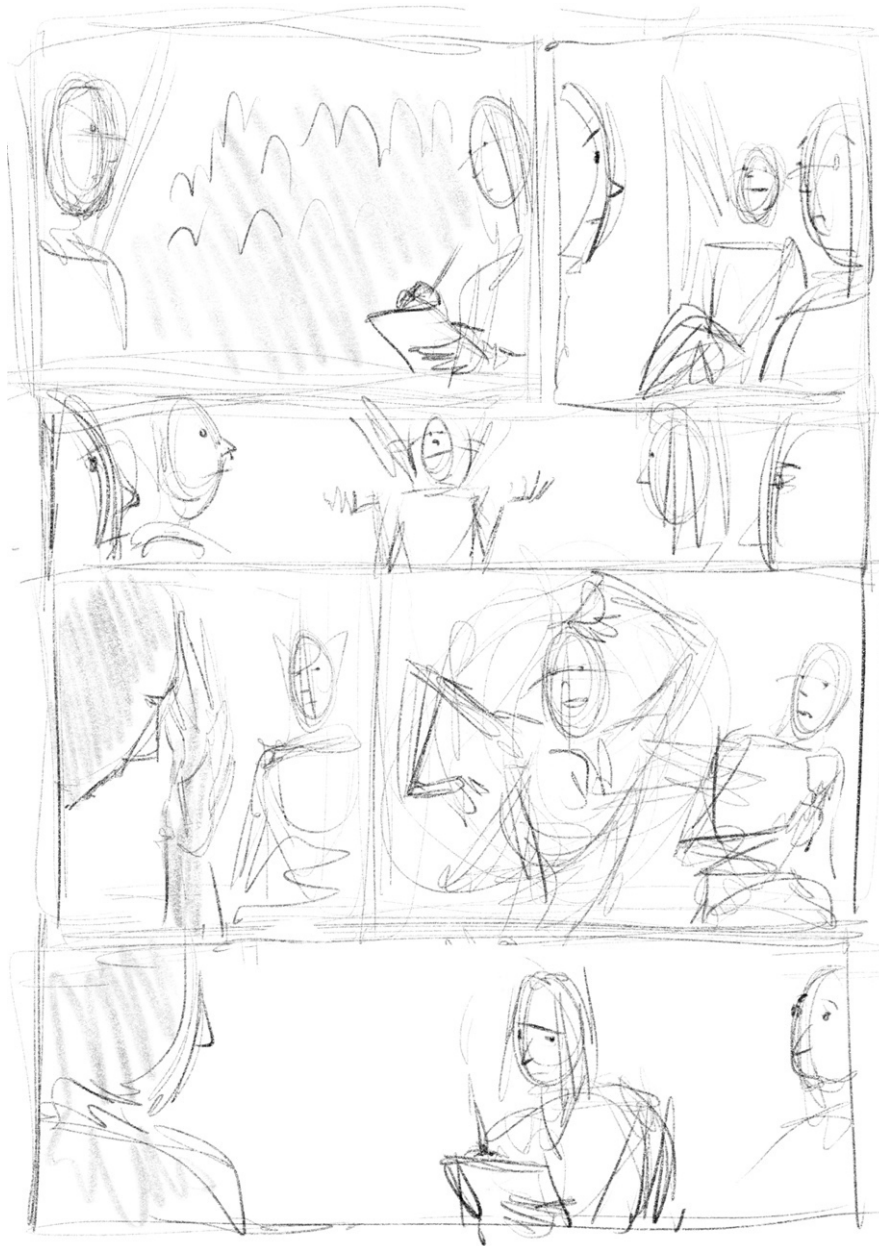


Figure 4

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S.R. Ayers is a self-taught artist that has been working in comics, illustration & animation for magazines and productions in the US, Austria & Germany for the last fifteen years. Along with printed and animated work he has also performed as the live-drawing artist for multiple music/multi-media bands, always with a socially and politically conscious direction in the storytelling. <https://www.instagram.com/herr.slidetooth/>