The Chef as Designer: Classifying the Techniques that Chefs use in Creating Innovative Dishes

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Abstract

This qualitative study explores the methods that chefs use to create innovative marketable product and compares these findings to other design tools. This study is based on a series of interviews with locally recognized chefs in Minnesota and observations of them in their kitchens in order to understand the details of how they conceive and develop dishes from preliminary concept to final plating and user consumption. This paper focuses on idea generation and discusses two key findings: first, the variety of idea generation techniques presented by the chefs can be classified into the creativity tool SCAMPER (substitute, combine, adapt, modify/magnify, put to other use, eliminate, reverse/rearrange); second, chefs evoke the theory of MAYA or Most Advanced Yet Acceptable when innovating new dishes, which implies making novel changes while remaining relatable to the consumer. Other reoccurring topics in the interview discussion of food innovation include play, surprise, and humor.

Keywords
Food, chefs, creativity, innovation, SCAMPER

Introduction

Currently we are in an “experience economy” (Pine & Gilmore, 1999), where consumers seek out experiences that intrigue, innovate, and inspire. Chefs are expected to create dining experiences that go beyond offering quality product. In a sense, chefs can be viewed as designers; their professional kitchens acting as design studios and manufacturing plants, innovating and transforming ingredients for small-scale production; the design outcome is an edible consumer product that requires design for evoking complex multi-sensorial experiences of specific consumers. To achieve this, the chef must understand their target market in order to create appropriate and desirable products. They must continually adapt to changing trends and consumer needs to maintain the economic viability of their product. When the chef develops a new product, they must consider the interaction, the emotional reactions, the visual aesthetic, the cost, and the reproducibility.
As a designer, the chef follows a process when developing innovative dishes, which involves idea generation, testing, iteration, and refinement. The focus of this paper is on the early stages of design, specifically methods of idea generation and inspiration.

In this study we interviewed a series of locally acclaimed chefs in Minnesota, USA, about their practices of developing new dishes in order to better understand what techniques they use in their creative processes. If processes are similar to the methods designers use in other fields such as industrial design, perhaps chefs could learn from existing design tools and designers can learn from chefs. This paper will lay forth our research methods and detail our understanding of how individual chefs approach the creative process with examples from specific dishes.

**Background**

**Chefs and Design Process**

With a demand for systematic culinary innovation, chefs commonly undertake the basic creative process of ideation-experimentation-iteration, similarly to a design process used for general consumer products. The culinary innovation process outlined by Ottenbacher and Harrington (2007) in Figure 1 is very similar to a generic product design process (Ulrich & Epinger, 2011).

Table 1. A comparison of the process of product development and culinary innovation
In this study we focus on the first two stages of these processes, planning and idea generation. A creative product is more likely to get a positive response from consumers (Horn & Salvendy, 2009), thus an dish perceived to be innovative is more likely to sell in a commercial setting. Modernist cuisine or “molecular gastronomy” is the term given to food preparation with “novel combination of ingredients and preparation methods” that is more open to scientific approaches (Van der Linden et al, 2008). It requires chefs to shift their focus from functionality to experience, as with other design-focused industries (Henn, 2013). Examples of successful pioneers of such an approach include El Bulli in Catalonia, Spain and the Fat Duck in Berkshire, England.

There is minimal official records or academic literature about the creative processes that chefs use to produce innovative dishes. Thus we looked to books published by two chefs internationally acclaimed for their innovative approach to cooking, Ferran Adria of El Bulli (Adria, Adria & Soler, 2010) and Grant Achatz of Alinea (Achatz & Kokonas, 2008).

At el Bulli, a rigorous method of experimentation and recording results is the backbone of the culinary design process. When a chef finds an idea they want to explore, they proceed to experimentation with thorough documentation, and finally to analysis and testing through tasting from both the chef team and customers:

The idea is developed by using one or more of the creative methods or by working intuitively. Tests are carried out, and the results are documented with photographs and in the creative notebooks...the tests are analyzed using the chefs’ mental palates...Final testing takes place and results in a prototype, which is developed into a dish in the kitchens at el Bulli. The new dish is served to guests... and their feedback is collected (Svejenova, Mazza & Planellas, 2007)

Chef Achatz, for whom “creativity is primarily the result of hard work and study,” begins the ideation process by considering materials, tools, and techniques (Achatz & Kokonas, 2008).
Achatz describes his process as beginning “somewhere in the back of my mind: what ingredient, what manipulation, and how many permutations. The equation becomes more complicated, and usually takes a few wrong turns, before we find the answer. But it all boils down to the same logical process that can often only be identified in hindsight” (Achatz & Kokonas, 2008). Though Chef Achatz simplifies his methodology to just material and modification, his end product must be marketable to support his creative impulses. Both Adria and Achatz provide a list of their creative methods that they use in developing new dishes. This is shown in Table 2 with similar methods listed side by side.

Table 2: Comparison of the Creative Methods Described by Chefs Adria (Adria, Adria & Soler, 2010) and Achatz (Achatz & Kokonas, 2008)

<table>
<thead>
<tr>
<th>Ferran Adria (Adria, Adria &amp; Soler, 2010)</th>
<th>Grant Achatz (Achatz &amp; Kokonas, 2008)</th>
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<tr>
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<td>the Senses as a Starting Point</td>
<td>Aroma (intentionally adding smells), Bouncing Flavors</td>
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<td>The Sixth Sense (provoking a deeper</td>
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response through play, surprise, irony, etc)

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<th>Bouncing Flavors</th>
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<td>Reversal, Texture Manipulation</td>
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A close reading of these two chefs’ processes of innovation reveals that they are involved in and recognize their own systematic approaches to creating new dishes. Yet the definition and classification of the related activities and procedures remain inherently ambiguous and thus are not explicitly articulate. This is not entirely unexpected as innovation and its management is a complex process with a wide range of contributing factors. For example, finding inspirations for a new dish alone can occur based on multiple factors. In a prior study interviewing 12 chefs of Michelin Star restaurants in Germany, chefs were asked where their inspiration comes from in developing new dishes. In order of percentage reporting, chefs found inspiration from colleague’s restaurants, literature, new technology, food markets, television, traveling, prior employment, and customers (Ottenbacher & Harrington, 2007). Thus culinary innovation requires inquires into related artistic and technical tenets to find novel connections. This maps to the Associative Theory of Creativity which states that the creative act, whether in poetry or science, depends on discovering analogies between two or more ideas previously thought unrelated to meet specified requirements or are in some way useful (Mednick, 1962).

**Related Theories and Techniques of Design Innovation**

Design-led innovation or design thinking has received increasing attention from fields that were not traditionally associated with design such as business management (Verganti, 2009). In this section we will define terminology that is often used in design industry.

Innovation is the embodiment, combination or synthesis of knowledge in original, valued new products, processes or services (Luecke & Katz, 2003). Innovation can be radical or incremental. Radical innovation involves creating a completely new market that did not exist before whereas incremental innovation is at a smaller scale involving new features, improvements, and changes to existing items in an existing market (Garcia and Calantone, 2002).

Adria recently published his “Notes on Creativity” as a collection of drawings. In this museum exhibit and accompanying publication, Adria presents a hierarchy of creativity, which he calls the “creative pyramid” shown in Figure 2 (Hamilton, Adria & Littman, 2014). At the top of the pyramid is technical-conceptual creativity, which represents the starting point future innovation. This type
of creativity could be termed invention. The example Adria uses is puff pastry, which at one point in time was a new technology/process/material in the culinary world. A step down on the pyramid is combinatorial creativity, which could be termed innovation. In this example, it is finding non-obvious uses for an existing material or technology such as transforming puff pastry into a tart. Another step down the pyramid is evolution of previously-created recipes, which could be termed incremental innovation.

![Creative Pyramid by Ferran Adria (2014)](image)

Fig 2. Creative Pyramid by Ferran Adria (2014)

There are many tools that designers use to innovate product and services. The following are a selection of key design tools and principles that are related to making novel modifications to result in the innovation of product.

**SCAMPER**

SCAMPER is an innovation tool developed by Bob Eberle (1972) based on thinking strategies from Osborn (1963). SCAMPER is a mnemonic acronym that stands for Substitute, Combine, Adapt, Modify/Magnify, Put to other use, Eliminate/Minify, Reverse/Rearrange (Eberle, 1972). All of these constituents of SCAMPER are about making incremental changes to known entities to produce something novel.
MAYA

The principle of MAYA (Most Advanced, Yet Acceptable) coined by mid-century industrial designer Raymond Loewy suggests that social acceptance of innovation requires a connection to expectations (Loewy, 1952). People want to be able to quickly relate to a new exciting thing and assimilate it into existing paradigms. Radical innovation is sometimes hard to assimilate and can seem overwhelming, intimidating, and scary. Incremental innovation is easier to understand and appreciate. Studies have shown that people prefer things that are both typical and novel (Hekkert, Snelders & van Wieringen, 2003).

Mind Mapping and Flavor Bouncing

Making associations is an important component of many idea generation methods. A tool called Mind Mapping is a non-linear way of organizing, visualizing, and generating ideas (Buzan and Buzan, 1993). A mind map is a diagram that has words and graphics branching out radially from a central concept. Adding and connecting branches can make interesting and non-obvious connections. Association Mapping is a variation of mind mapping specific to product design (Ludden et al, 2012). Chef Grant Achatz developed another variation on a Mind Map called Flavor Bouncing in his Harvard lecture on Reinventing Food Texture and Flavor (Brenner, Sörensen & Weitz, 2010). Using this tool, a starting ingredient is placed at the center of a page and other ingredients that pair with that central ingredient are listed as outward branches. As connections are made between the branches, one can begin to visualize ingredients that work well with each other. This tool is useful for helping chefs make non-obvious connections between groups of seemingly unrelated ingredients.

Surprise, Humor and Creative Design

According to the incongruity theory of humor, something is funny if elements come together that aren’t expected to come together but somehow make sense (Keith-Spiegel, 1972). One can map this directly to the associative theory of creativity which states that creativity is about making non-obvious connections between seemingly unrelated things (Martindale, 1999). Prior research has found correlations between humor and creativity (Kudrowitz, 2010), as well as humor and the emotional response to a product (Norman, 2004). In order for something to be funny or creative, it needs to have an unexpected novel element that the consumer can eventually make sense of and assimilate into their existing schema. Perhaps this is why surprise was found to be an important element in fine dining food (Ottenbacher and Harrington, 2007). Oscar Niemeyer, Architect of Brasilia’s Cathedral, said “surprise is the main thing in a work of art.” It is not enough to simply work well and be beautiful (Hustwit, 2012).

Qualitative Study
This study is based on informal interviews of chefs in the metropolitan Minneapolis area. We used a modified general interview guide approach (Turner, 2010) by creating a short series of prompts on topics such as idea generation, sources of inspiration, and iteration. The unstructured conversational format allowed for additional lines of inquiry and a more improvisational tone to the interview. The following is an outline of the key questions/prompts we asked to the participating chefs.

- Tell us about yourself and your restaurant.
- Describe your process for developing new dishes.
- Can you describe some dishes that you feel are innovative?
- What/who inspires you? How do you think of new ideas?
- Does experience/story/play have a role in the food you create?
- Can you talk about any dishes that did not work well?
- Do modern tools and techniques play a role in your food?

The sessions were conducted in the restaurant’s dining room and kitchen of the participating chef. All interviews were videotaped for documentation. The conversations were analyzed and coded to find similar themes and anecdotes for developing general insights into the methods of creating new dishes. Interviews were approximately 90 minutes. The first portion of the interview was a conversational format and then the chef was asked to produce one or two dishes and describe their design evolution. To date, we have conducted interviews with ten chefs. Chefs were given an honorarium for time and materials.

**Results**

In general, the innovation process of chefs maps well to a design process. The following findings became evident through the qualitative interviews described above, and recurring themes include the use of SCAMPER and MAYA in chefs’ creative processes in addition to their considerations of flavors, appearance, color, texture, portion, cost/profit margins and the overall menu.

**SCAMPER and Creative Methods of Chefs**

Before evaluating the interview content, we will first map the existing creative methods presented by Chefs Adria and Achatz in Table 2 to the constituents of SCAMPER. This is shown in Table 3.

Table 3: Classifying Proposed Creative Methods from Chefs Adria and Achatz into SCAMPER

<table>
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<tr>
<th>SCAMPER</th>
<th>Ferran Adria</th>
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<td></td>
<td>Texture Manipulation</td>
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<tr>
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<td></td>
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SCAMPER appears to be an acceptable higher order classification of the creative methods employed by these chefs.
One creative method that does not fit into the SCAMPER classification is what Adria refers to as “the Sixth Sense” or provoking a deeper response through play, surprise, and humor (Adria, Adria & Soler, 2010). This is more likely a response to a creative method than a creative method in itself.

During the interviews in this study, we noticed that this “Sixth Sense” was discussed often in relationship to creativity and innovation. Although it is not referred to as such, we found that chefs use elements of SCAMPER to innovate food concepts often for the goal of generating intrigue, play, surprise and/or humor. The following results sections are divided into the categories of SCAMPER. In each section we illustrate the category with multiple examples from the chef participants describing their creative methods and dishes.

**Substitute**

Substitution is a technique that home cooks use often when they are missing an ingredient for a recipe or they have a specific food allergy or dietary restriction. The Minneapolis restaurant Haute Dish, whose own name is a play on the classic Minnesotan ‘hot dish’ casserole, uses puns and other forms of humor in creating their culturally specific dishes. Chef Landon Schoenefeld comments on Haute Dish:

> What we do here at the restaurant is we take and we deconstruct [Midwestern food] and people from the area can really make a connection with that...It's nostalgic for them to have these flavors that they can recognize, but then they look at the dish in front of them and it's something completely different from what they're used to. That speaks to people.

This is an example of the theory of MAYA and it is used to delight through humor.

In this study, the dish can be viewed as a physical joke. When the consumer makes the non-obvious connection between the elements, they “get the punch line.” The result is amusement and potentially laughter. A dish that is perceived to be humorous may also be perceived to be creative, increasing the attractiveness of the product to its consumer. A similar comment from Chef Doug Flicker of Piccolo:

> I think to me, when I write a dish, or execute a dish, I kind of want it to be like a joke, like a good joke. Because a good joke you want to tell somebody else, you want to pass it on. And a good joke is smart. You can tell that somebody thought about it. So a good dish to me is something that people hopefully can see some of the thought process that goes into it. They enjoy it, it maybe makes them laugh, or it provokes an emotion of some sort. And then when it's gone, they want to tell somebody about it the next day. To me that's a really good dish.

Chef Schoenefeld designed his Walleye Scallop dish using the local fish staple to impersonate the classic “high-dining” shellfish. The walleye is blended into mousse, then piped into discs and
seared to resemble scallops. This element of the dish alone is humorous in that a relatively inexpensive local item is transformed to appear as a more expensive foreign item. The punch line occurs when the consumer eats the item and realizes that it has been transformed to have a similar texture and flavor. Additionally, the “scallop” is then placed on a bed of sunflower seed risotto. Risotto is a creamy Italian rice dish that is typically made from short grain rice. In this case, the non-obvious connection is made between sunflower seeds and short grain rice, in that they look similar and both can be cooked down to a creamy consistency. Not only is this a creative edible joke, it is also a form of parody.

![Fig 3. Walleye scallops with sunflower seed risotto, Haute Dish, Chef Landon Schoenefeld](image)

**Combine**

Combination is a common form of innovating and it is the basis of the Associate Theory of Creativity (Mednick, 1962). Daniel Pink calls this method the “Reese's Peanut Butter Cup Theory of Innovation” where two existing items are brought together to form a new item (Pink, 2006). There are a number of tools available to help cooks and chefs find interesting combinations between ingredients such as the Flavor Bible (Page & Dornenberg, 2008), The Flavor Thesaurus (Segnit, 2010), and the FoodPairing software at foodpairing.com.

Chef Schoenefeld discusses combinations in a more traditional sense as he often begins the design process using what CFCs (“Classic Flavor Combinations,”) or triads of ingredients that traditionally work well together. He explains “The flavors have to make sense in my head…tarragon, orange, and star anise, that’s a triad that has to fit into the duck dish that we have right now or something savory like our tater tot hot dish.” The process of combining classic
flavors allows his creativity to remain approachable to his customers. Similar to making a mind map or a flavor bouncing, Chef Schoenefeld is visual with the connections.

Adapt

Chefs are constantly adapting old techniques to work better in their kitchen, or taking traditional flavor pairings and making them their own. A recurring theme throughout the interviews was adapting seasonal ingredients in order to connect with their location and audience. Like any product experience, the perception of authenticity is an important factor in purchase decisions (Gilmore & Pine). Authenticity in this case can be conveyed to the diner by the chef’s adaptation to the local surroundings using seasonally available ingredients. Chef Wyatt Evans of W.A. Frost and Co. discussed adaptation to local seasonality in his modified clam chowder:

We had this idea to do kind of a play on clam chowder but you know you can’t work in corn and peppers because we don’t want to use those things in January. So we thought of doing a root vegetable clam chowder.

The restaurant La Belle Vie was challenged to invent a five-course menu incorporating a world-class chocolate into each course. Pastry Chef Diane Yang explains her creative process on how she adapted cherry cola into a plated dessert:

The last course was dessert, and I’m like, ‘what can I do where I cannot mess up the chocolate flavor?’ Where I can keep it still, because it’s such a delicate and expensive chocolate I wanted to keep it whole.

She decided to make a well-balanced chocolate cremieux, or custard. When her assistant walked into work with a cherry soda, Chef Yang was inspired to use cola as a light, sweet, and refreshing accent to the dark chocolate and cherry combination noting that “it basically cleanses your palate.” The chilled mound of sherbet is balanced by warm chocolate soufflés, while cherry meringue crisps accent the softness of the cremieux.
Fig. 4. Chocolate cremieux with candied morello cherries, chocolate souffles, cherry meringues and cola sherbet, La Belle Vie, Chef Diane Yang

**Modify/Magnify**

Modification is essentially what chefs do every day; they take ingredients and manipulate them into new forms and textures. However for a creative method, we focus on modifying ingredients or dishes to the point where they are different from expected. This sometimes involves using new transformative tools and chemicals.

When first creating his butternut squash soup, Chef Steven Brown of Tilia knew he wanted to reimagine the classic dish as a surprising dining experience. He says:

> Everyone’s probably had a butternut squash soup, so…if that’s the four walls of our building, then how’s it going to look, how’s it going to work? We want to do something that’s familiar to people, but at the same time we wanted to have a little bit of a challenge to them, a little bit of a surprise.

Chef Brown is paraphrasing the principle of MAYA. In Chef Brown’s butternut squash soup, he began with a traditional flavor combination of bacon, maple syrup, and butternut squash, and then manipulated each ingredient into a new and unusual form. The bacon mixture is aerated with nitrous oxide, the maple syrup is spherified using agar-agar and hydrochloride, and butternut squash is finely shredded and deep-fried. As Chef Brown says “So, rather than getting a squirt of maple syrup, you get this other thing. Texturally, visually, it becomes something else.” The bowl is presented, room temperature, to the table before the waiter dramatically pours a pitcher of hot
soup over the three elements, and adds sage-infused olive oil from a dropper. As the diner combines the soup, the bacon foam and maple syrup spheres slowly dissolve into the mixture, leaving the crunchy squash as texture. Although the experience is unexpected and the ingredients are modified in new ways, the resulting taste is still familiar and timeless.

Fig. 5. Butternut squash soup, Tilia, Chef Steven Brown

In Chef Wyatt Evans Clam Chowder example, he was also interested in modifying the textures and presentation.

So what we ended up deciding to do is take the potato component of the clam chowder and pull it out and make a hash cake. So you shred up the potatoes and you fry it until it’s crispy so it adds another texture to the dish. We made a sauce that’s kind of the idea of a clam chowder, utilizing an underutilized root vegetable, parsley root. So we make this nice white clam chowder inspired sauce using a root vegetable, we garnish it with a small dice of root vegetables and then we serve it on top of the potato hash cake.
**Put to Other Use**

To achieve many of the other approaches found within the SCAMPER model, chefs use what they have at their disposal and put things to other uses. Often home chefs engage in this type of creativity in such examples as using a waffle iron to make hash browns or a coffee mill to grind spices. There are many types of chemicals that have been used in the past for mass-produced food that modern chefs are now re-purposing in their kitchens. “Because of some of these new ingredients in our pantry, it’s making a lot of things possible that weren’t possible before, like Activa,” explains Chef Schoenefeld of Haute Dish. Activa is a Transglutaminase (TG) that “bonds protein molecules together with a very strong (covalent) bond by linking two amino acids: glutamine and lysine,” (Arnold, 2011) more commonly referred to in the culinary world as meat glue. Schoenefeld explains:

Bonding proteins together, they’ve been using things like this for hot dogs and deli meats for years, you know what I mean, but in the hands of a creative chef, you know, you can do all sorts of things

Chef Doug Flicker of Piccolo restaurant comments on an example of his inspiration for putting a sauce to another use:

Sometimes it is as simple as seeing something... Lake Superior Herring comes into season, it was spring, and I was gonna do something with Herring and I’m looking around [the local fish market] and they’ve got Eel sauce and it just kind of hit me that Herring kind of looks like an Eel, its about that size its got a certain oiliness and right there staring at me is eel sauce. So that then set this kind of impetus for creating this dish and taking these bones in soy sauce and making my own eel sauce sometimes its as simple as that.

This is also an example of the associative theory of creativity. Chef Flicker made a non-obvious connection between Eels and Herring to put Eel sauce to another user.

**Eliminate**

Elimination of elements of a design is a common approach to achieve a goal in most design disciplines. Dieter Rams, German designer was a pioneer in the “less in more” philosophy dedicated to minimalism and simplicity (Lovell, 2011). Similarly, The Bachelor Farmer’s former Sous Chef Jon Wipflie explains “the impact of a modern plating or perfectly executed cooking techniques can create a powerful effect without overdoing the ingredients.” Doug Flicker shares an example from his experience dining at Ferran Adria’s el Bulli, of how a minimalistic dish can leave a powerful long-lasting impression.
We got this bowl that had a layer of ice half way down. And you look at this thing and you’re like, how did they get it in there? It is perfectly level, it is set into it, the bowl isn't particularly cold so they didn’t freeze it that way. They just come over and [the server] taps some sugar and some spearmint on it. And just the process of you breaking it and you hear it crumble into the bowl. And all you’re eating is water, sugar and spearmint, but it is the most incredible water sugar and spearmint I have ever had in my life.

Chef Steven Brown describes his creative process as paring down more than adding on. Chef Brown explains:

One of my favorite quotes is this Rimbaud quote, ‘within the confines come the freedom.’ So, when somebody tells you can make anything you want, that’s a pretty big box. If somebody says I want a dish made of pork with seasonal vegetables and gluten-free, then that’s a better box to work in

Reverse/Rearrange

Chefs often rearrange presentation or the main ingredient in a dish. A technique that is popular in modern restaurants is *deconstruction*. Essentially a familiar dish is separated into its constituent elements in an elegant manner and the consumer can then assemble the dish on their plate, in their mouth, or taste and mix the individual elements separately. This technique forces the consumer to look at a classic dish in a different way. It also forces the consumer to think about the ingredients and flavors and to take part in an experience of reconstructing the dish.

Chef Stewart Woodman of Heidi’s Minneapolis suggests that a *partially deconstructed* dish is much more enjoyable for the consumer than a fully-deconstructed dish in that the consumer sees the originality, can have some level of active experimentation with flavors, but does not have to think too much about the activity and can spend more time enjoying the food and company.

Chef Woodman designed his Carrot Terrine dish to make the customer feel immersed in a whimsical garden. Roasted fennel has been transformed into “dirt” and edible flowers, carrot tops and baby cilantro are arranged with tweezers around the plate to balance the composition. The consumer is encouraged to play with the food by pulling from the compressed, slow cooked, layered carrot monolith and mixing it with the carrot gel, carrot powder, beet powder, and lemon sorbet. This dish is not fully deconstructed, but is deconstructed enough to allow for some variety in each bite.
In both plated dishes and consumer products, the creator is not typically present to explain how to interact and so the chef/designer create affordances that suggest the consumer to act in a certain manner. An affordance is an action potential for an item (Norman, 1999). For example, a red button raised from a black panel would afford pressing. The more affordances there are, the more opportunities for different interactions and play. A deconstructed dish has many different affordances and therefore there is more opportunity for play. An amuse-bouche, a single-bite hors-d’oeuvre, typically has one obvious affordance, which in some cases could be a very playful affordance, but does not allow for the consumer to create the play or play in different ways.

**Conclusion**

Chefs and designers employ several of the same techniques to produce innovative product. In this study we first mapped published creative methods presented by highly acclaimed chefs to the SCAMPER design tool. We then conducted a series of interviews with locally acclaimed chefs and their personal examples were used to help support this mapping. A common theme in the chef interviews was the use of the theory of MAYA, play, surprise, and humor to generate innovative ideas and successful experiences for restaurant-goers. Each participating chef recognized that using these techniques affects a positive consumer response.

This paper is only the beginning of a study to draw direct comparisons between the current body of research on the creative processes of chefs and product designers in order to understand what each industry can teach the other. Much like the newest and fastest consumer electronics, diners are seeking out the most innovative chefs, dishes, and overall dining experiences. As the food culture changes, chefs must continue to explore sources of inspiration and modes of expression in order to stay viable in the highly-competitive and ever-expanding restaurant market. Being able to understand and teach elements of design, innovation, and idea generation to
novice chefs will facilitate their ability to succeed in an aggressive workplace. Additionally, designers can learn from the quick iteration process used in high cuisine, as well as the immediate and tactile experience of manipulating food into a design for direct consumption.

We think that our study could have conducted a larger scale investigation involving chefs from outside Minnesota in order to consider and test the generalizability of the findings. Nonetheless, we believe that involving observations and in-depth interviews with ten high-profile chefs and methodically comparing their approaches to those of internationally renowned chefs produced sufficient data and analysis that led to new knowledge about creative processes involved in commercial culinary innovation. As we continue our explorations, we hope more studies would emerge from various fields of research to shed a light on this fascinating yet under researched area.

References


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Dr. Barry Kudrowitz is an assistant professor and director of product design at the University of Minnesota. His current research explores how creativity is perceived, evaluated and learned. Kudrowitz co-designed a Nerf toy, an elevator simulator that is in operation at the International Spy Museum in Washington, D.C., and a ketchup-dispensing robot that was featured on the Martha Stewart Show. Kudrowitz currently teaches a Food and Design class at the University of Minnesota.

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Emily Stover is a designer and public artist working in alternative landscapes and temporary architecture. She is interested in revealing the hidden social and physical phenomena that exist in the everyday environment, and has recently been exploring food as a medium. In addition to a Masters in Landscape Architecture, she has recently completed installations at the Bakken Museum, the Art Shanty Project, and the Walker Art Center’s Open Field.