The Role of Intuition in the Creative Process of Expert Chefs

ABSTRACT

Scholars studying intuition are frequently focusing on decision-takers and to this day conceptualize intuition as a form of judgment. More recently, the notion of intuition in creativity has been challenged by the argument that although the creative process may contain intuitive judgments, any creative idea or solution is essentially the result of intuitive insight. This interpretivist study seeks an increased understanding of the role of intuition in the creative process by providing empirical evidence from in-depth interviews with expert chefs. The findings show that the interviewees describe their experiences of the creative process in line with how the literature describes intuition and explain intuitive insight and judgment as instantaneous yet distinct and rapid processes.

THEORETICAL BACKGROUND

For a long time, intuition had been associated with mystical or, at least, unscientific conceptualizations, even though a number of philosophers emphasized its significance. More recently, however, we have seen a rejuvenation of academic interest in intuition, and it has become recognized as an important topic in both psychology and management research (e.g. Akinci & Sadler-Smith, 2012; Matzler et al., 2007; Matzler et al., 2014; Osbeck, 1999, 2001; Sadler-Smith, 2008). Yet, to date, it remains perhaps the least understood phenomenon of managerial cognition (Hodgkinson & Healey, 2011), and intuition in creativity, in particular, is considered to be the least explored area of intuition research (Dörfler & Ackermann, 2012). As the renewed interest in intuition stems from researchers interested in decision takers, it is generally defined as “affectively charged judgment that arises through rapid, non-conscious and holistic associations” (Dane & Pratt, 2007: 40). Intuition is also acknowledged by managers to be a widely practiced locus of direction (Matzler et al., 2014; Mintzberg, 1976).
that is usually associated with increasingly unstructured and complex problems that demand resolution under significant time constraints amid a sea of available information (Hodgkinson et al., 2009).

Despite the fact that intuition has proven to be vital in finding novel solutions quickly, contributions to the literature on the role of intuition in creativity are sparse (e.g. Claxton, 1998; Dane & Pratt, 2009; Dörfler & Ackermann, 2012; Hodgkinson et al., 2009; Sinclair, 2010). The little that is known so far seems to be of a more general nature, stating, for example, that high level of expertise is a necessary antecedent to trustworthy intuition (Dane & Pratt, 2009; Dijksterhuis & Nordgren, 2006; Kahneman & Klein, 2009).

More recently, Dörfler and Ackermann (2012) have challenged the notion of intuition in creativity. They argue that although the creative process may contain intuitive judgments by which several decisions may be tacitly incorporated into a cognitive roadmap (e.g. deciding on the path of direction of a research project), any creative idea or solution is essentially the result of intuitive insight by which the elements of the respective domain knowledge are tacitly synthesized in a new way creating a novum. In other words, intuitive judgment can be defined as the act of tacitly integrating the factors involved in a decision into a picture about what to do and intuitive insight can be defined as the act of tacitly synthesizing the components of the domain knowledge in a novel way, thus creating knowledge that did not exist before (Dörfler & Ackermann, 2012: 559). In the domain of haute cuisine, for example, intuitive judgment entails assessing whether an unusual flavor combination will prove to be delicious or not (taking into consideration a particular event, setting, customer), whereas intuitive insight entails creating a beautiful new flavor combination.

The contribution of this paper is an increased understanding of the role of intuition in the creative process by providing empirical evidence from in-depth interviews with expert chefs, which were initially conducted to explore the experience of creativity and the creative
process. When we were analyzing the transcripts, however, we observed what may be termed ‘moments of intuition’, which are frequently characterized by the cognitive linking of previously unrelated concepts (Hodgkinson et al., 2009). In this paper, we present and discuss these moments of intuition and their role in the creative process of expert chefs. Furthermore, in line with other interpretivist researchers, we appreciate that the concept of intuition in creativity is socially constructed (Crossan et al., 1999; Sinclair & Hamilton, 2014) and acknowledge that it may sometimes “remain inexpressible in words or other symbols” (Dörfler & Ackermann, 2012: 556), and loaded with contextual interpretations (Dörfler & Eden, 2014; Stierand & Dörfler, 2014).

METHODS

Study Context

We conducted our research in an important but under-researched field of the creative industries and cultural economy, haute cuisine, where creativity is a fundamental expectation by both paying customers and the domain’s two leading gatekeepers (Petruzzelli & Savino, 2014; Stierand, 2015; Stierand et al., 2014; Svejenova et al., 2007; Svejenova et al., 2010; Woodward & Stierand, 2014): the Michelin (ratings are on a one- to three-star scale) and Gault Millau (ratings are on a 1- to 20-point scale) restaurant guides. Therefore, we have used these two guides for identifying our chef participants (see Table 1), who all signed an information release form and agreed that we could attribute quotations to them by name.
TABLE 1. Participants

<table>
<thead>
<tr>
<th>Name of Chef</th>
<th>Michelin/Gault Millau ranking (at time of research)</th>
<th>Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>UK</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fergus Henderson</td>
<td>1* n/a</td>
<td>St John’s, London</td>
</tr>
<tr>
<td>Raymond Blanc</td>
<td>2* n/a</td>
<td>Le Manoir aux Quat’Saisons, Great Milton</td>
</tr>
<tr>
<td><strong>France</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jean-Georges Klein</td>
<td>3* 18</td>
<td>L’Arnsbourg, Baerenthal</td>
</tr>
<tr>
<td>Michel Troisgros</td>
<td>3* 19</td>
<td>Maison Troisgros, Roanne</td>
</tr>
<tr>
<td>Michel Bras</td>
<td>3* 19</td>
<td>Bras, Laguiole</td>
</tr>
<tr>
<td>Sébastien Bras</td>
<td>3* 19</td>
<td>Bras, Laguiole</td>
</tr>
<tr>
<td><strong>Spain</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Andoni Luis Aduriz</td>
<td>2* n/a</td>
<td>Mugaritz, Errenteria</td>
</tr>
<tr>
<td>Joan Roca</td>
<td>2* n/a</td>
<td>El Celler de Can Roca, Girona</td>
</tr>
<tr>
<td>Ferran Adrià</td>
<td>3* n/a</td>
<td>El Bulli, Roses</td>
</tr>
<tr>
<td><strong>Austria</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heinz Reitbauer</td>
<td>2* 19</td>
<td>Steirereck, Vienna</td>
</tr>
<tr>
<td>Roland Trettl</td>
<td>1* 18</td>
<td>Ikarus im Hangar-7, Salzburg</td>
</tr>
<tr>
<td><strong>Germany</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Harald Wohlfahrt</td>
<td>3* 19</td>
<td>Schwarzwaldstube, Baiersbronn</td>
</tr>
<tr>
<td>Dieter Müller</td>
<td>3* 19</td>
<td>Dieter Müller, Bergisch Gladbach</td>
</tr>
<tr>
<td>Nils Henkel</td>
<td>3* 19</td>
<td>Gourmetrestaurant Lerbach, Bergisch Gladbach</td>
</tr>
<tr>
<td>Heinz Winkler</td>
<td>3* 19</td>
<td>Venezianisches Restaurant, Aschau</td>
</tr>
<tr>
<td>Hans Haas</td>
<td>2* 18</td>
<td>Tantris, Munich</td>
</tr>
<tr>
<td>Joachim Wissler</td>
<td>3* 19</td>
<td>Vendôme, Bergisch Gladbach</td>
</tr>
<tr>
<td>Juan Amador</td>
<td>3* 17</td>
<td>Amador, Langen</td>
</tr>
</tbody>
</table>

Participants and Data Collection

Due to the high complexity and limited academic understanding of the research topic, we follow a qualitative research design that can capture people’s experiences (Stierand & Dörfler, 2012, 2014). Data was collected through 18 face-to-face, semi-structured, in-depth interviews with chefs from France, Spain, Austria, Germany, and the UK. In addition, we recorded observational, theoretical and methodological notes in a research diary prior to and after each interview as well as during and after restaurant tours and invited lunches. These
notes were explanatory in nature and helped us to recall aspects the participants revealed
during the interview, but which may otherwise remain difficult to uncover in the transcripts
only.

The fact that the chefs are listed in the aforementioned restaurant guides further
guarantees that they had significant and repeated experience of the creative process and
therefore can be regarded as ‘knowledgeable agents’ who have clear goals and are able to
report and “explain their thoughts, actions and intentions” (Gioia et al., 2013: 17). Thus, a
non-probability, purposeful sampling strategy was employed, making use of snowballing and
a personal industry contact of the lead researcher, who had been a chef in haute cuisine. The
lead researcher’s status as a ‘native’ (Brannick & Coghlan, 2007) led to increased insight
(Fisher & Hutchings, 2013), because it facilitated trust-building and enabled deeper
conversations between professionals, which would have been more difficult to achieve
otherwise (see Gioia & Chittipeddi, 1991). The advantage of the lead researcher’s status as a
‘native’ was particularly apparent when interviewees used specialist terms of the profession
and examples from practice.

Data Analysis

However, the status as a ‘native’ demanded rigorous self-reflection which was
supported by critical discussions within the research team after each interview in order to stay
alert to any influences that might have blurred the understanding of the interviewees’
accounts. Thus, the process of bracketing was used whereby “one looks at the data with the
attitude of relative openness” (Giorgi, 1994: 212). This process can be seen as a “dialectic
movement between bracketing preunderstandings and exploiting them reflexively as a source
of insight” (Finlay, 2009: 13). In practice, this meant that the lead researcher discussed the
data collection experiences and data interpretations with the second-named author. We
believe that this reflective exchange facilitated a more consistent interpretation process and
trustworthy findings, because it aided the identification of influences that might have biased or blurred the interpretation.

All interviews were recorded, fully transcribed, and the meaning units of those interviews not conducted in English were translated in order to allow all members of the research team to read and understand the data. The transcripts were first analyzed using Giorgi’s (1994) descriptive phenomenological method, which was followed by a second and interpretive-explanatory level of analysis. The thematic structure of the analyzed data can be seen in Figure 1.

FIGURE 1. Thematic structure of analyzed data

<table>
<thead>
<tr>
<th>First-Order Codes</th>
<th>Descriptive Level Themes</th>
<th>Interpretive-Explanatory Level Themes</th>
</tr>
</thead>
</table>
| • Statements about that inspiration “can happen accidentally” and “comes through the senses and happens in the mind”  
• Statements about that “ideas become tangible through reference points and aesthetics” and that “the result must be exciting” | Inspiration and Ideas | Idea Creation  
Intuitive Insight |
| • Statements about “being allowed to make mistakes” and phases of “trial and error”  
• Statements about “trying out crazy things” and about “being at the vanguard” | Freedom at Work | Inner Judgment  
Intuitive Judgment |
| • Statements about that chefs “must feel happiness when sensing the idea” and that they “speak through their creations”  
• Statements about that chefs “judge ideas against their own culture” and that ideas must have the potential to create happiness in others” | Self-reference and the ‘Inner’ Artist |  |
| • Statements about that “food is only meaningful in context” and that “gastronomy is a complex whole”  
• Statements about that every consideration “centres around the food” but that “customers and critics” are important | ‘Inner’ Influences on Creativity |  |

FINDINGS AND DISCUSSION

A widely held belief states that creativity shares many cognitive processes with problem-solving (Mumford et al., 1991; Reiter-Palmon & Illies, 2004) even though the relationship between the two is subject to a vigorous debate between those who argue that creativity is a special form of problem-solving and those who defend the opposite. The majority of authors, however, advocate that the core processes inherent in both creativity and
problem-solving can be categorized into an idea generation phase (which encloses our theme of ‘idea creation’) and an idea evaluation phase (which encloses our theme of ‘inner judgment’) (Basadur, 1997; Finke et al., 1992; Mumford, 2001; Mumford & Connelly, 1992; Reiter-Palmon & Illies, 2004). Hence, with some simplification, we could say that intuitive insight can be placed in the idea generation phase and intuitive judgment in the idea evaluation phase.

The chefs mentioned that their ideas often appear while they are engaged in ordinary everyday activities, such as going for a run, watching a movie, deboning a saddle of lamb and smelling spices and herbs, or just by touching beautiful produce:

*Great chefs* are so much in love with their food, they are able to touch their food and almost do things intuitively. (Raymond Blanc)

Harald Wohlfahrt referred to the process of idea generation as a kind of daydreaming during which different ingredients furtively appear, which he then cognitively combines. This is a description that was also confirmed by Nils Henkel and Dieter Müller who called it an intellectual and imaginative play with the sensory system to create new textures and flavours. Michel Trosigros said that creating ideas requires thinking and feeling. However, we can only assume that these examples of idea generation contain intuitive insight, even though the wording the chefs used is a strong indication. More obvious examples are those that seem to have happened accidentally. Dieter Müller, for instance, mentioned that he once entered the cold store in his restaurant and got annoyed, because one of his chefs had left the crayfish next to the sweetbreads.

*It made click in my head. Let’s do sweetbreads with crayfish. That’s how it starts and then it goes back and forth.* (Dieter Müller)

Dieter Müller’s intuitive insight resulted in a famous dish named *Cassoulet von Bach und Wiese* (engl. Cassoulet of River and Field) that became widely recognized for its
creativity. Yet, for these creative intuitive incidents to happen, the mind has to be free and the workplace has to allow failures, said Harald Wohlfahrt, because creativity cannot be forced. Andoni Luis Aduriz phrased it in a similar vein:

You have to be an innovator in an obsessive way. I am not going to say ‘I want to be an innovator’. Crazy! I am going to color my hair red and wear latex. So, innovation has to give me the process; it is a way of doing things. (Andoni Luis Aduriz)

Our findings do not suggest that intuitive insight is more likely to be found in moments of serendipitous idea generation. These moments just seem to happen to be the obvious ground where intuitive insight is sparked, because more deliberate and systematic approaches to idea generation often employ more analytical and therefore non-intuitive activities. For example, Michel Troisgros explained that he deliberately and systematically plays with shadow and light like a painter, but with the aim to create unexpected experiences that invite him to discover hidden flavours.

My cuisine is very particular; special...like a personal signature of acidity. I work a lot on the relations of acidity...like a play of contrasts, a play between shadow and light. (Michel Troisgros)

Hence, it is reasonable to assume that the idea generation phase is predominantly intra-personal. Joan Roca, for example, mentioned that he and his brothers always evaluate ideas on the basis of their personal manifesto, a kind of culinary value system that harmoniously unites wine, smell, balance of flavours, and tradition. Our findings further suggest that the idea evaluation phase of expert chefs consists of both intra-personal judgment and what we call intra-personal interpretation of inter-personal judgment. The latter may include, for example, intra-personal interpretation of how critics of restaurants guides may judge a specific dish or cuisine.
The art of cooking is in simplicity, but...sometimes I think back to my childhood, going for a walk, seeing fruits or veg and so on,...one could do a great cuisine there, but, unfortunately, this will not be recognised enough, because the media will not report about it...like about a chef who cooks a crazy cuisine with little things here and a drop of sauce there. (Dieter Müller)

Hence, we believe that the role of intuition in the creative process of expert chefs is to create rapid feedback and feedforward loops between idea generation and idea evaluation. This was expressed very poetically by Andoni Luis Aduriz:

...this is a new fruit. Imagine it would be exactly like that and ...I say to you this is a fruit and you take it...Your head is looking for a reference point. You are looking, all your archives in your brain trying to find something new and in the end it is like: well could be in between a pineapple and a banana. That is where you put it...this is this new fruit that tastes in between a banana and a pineapple, but the texture is like between a coconut and a walnut...So, you need something abstract for something figurative....now that it is a little bit familiar it is no longer banana-pineapple, it's got its own identity, it has its own name and then you can make a relation. (Andoni Luis Aduriz)

Since we were not asking the chefs interviewed specifically about intuition, but about their experience of the creative process, not all chefs explicitly used the term intuition and none of them used intuitive insight or intuitive judgment. However, the chefs described their experiences very much in line with how the literature describes intuition and we believe that this strengthens rather than weakens our findings. The chefs’ quotes clearly show that intuitive insight and judgment are instantaneous and that intuitive judgment often immediately follows intuitive insight, making a clear distinction between these two rapid processes very challenging from a research perspective.
DISCUSSION AND CONCLUSION

As the findings of our study show, the phenomenon of intuition may continue to be difficult to express in clear-cut terms (Dörfler & Ackermann, 2012), because it is fundamentally a ‘direct knowing’ (Behling & Eckel, 1991; Osbeck, 2001; Sinclair, 2011), a knowing without knowing how (Vaughan, 1979). In the context of expert chefs, we may therefore describe intuition as a kind of ‘sensory knowing’ (see Cunliffe & Coupland, 2012; Stierand, 2015), which seems to thrive during activities for which the chefs have learned to automatize the execution process (Sadler-Smith, 2008).

The findings also show that the conceptualisation of intuitive insight as distinct from intuitive judgment complements the intuition-as-judgment view and offers a more nuanced and comprehensive portrait of intuition (see Dörfler & Ackermann, 2012). On the one hand, we have exposed how the two forms of intuition are intertwined and the difficulties this poses to further studies of intuition. On the other hand, we were able to interpret from the interview data that expert chefs use intuitive insight during the idea generation phase and intuitive judgment during the idea evaluation phase. The latter has been argued to consist of both intra-personal judgment and, what we call, intra-personal interpretation of inter-personal judgment.

Intra-personal judgment is a result of an individual’s intrinsic motivation to create (Baker-Sennett & Ceci, 1996; Eisenberger et al., 1999; Getzels, 1975; Koestler, 1964; Ryan & Deci, 1985; Simonton, 1988) and entails both conscious and analytical phases as well as non-conscious and intuitive phases (Dane & Pratt, 2007; Dörfler & Ackermann, 2012). The intra-personal interpretation of inter-personal judgment, in contrast, stems from intuitively evaluating the inherited occupational practices and socio-cultural conventions of the domain (Csíkszentmihályi, 2014; Hardy et al., 2005; Kogut & Zander, 1996; Philips et al., 2004; Tsoukas, 2009; Tsoukas & Vladimirou, 2001), which act as an omnipresent but tacit sense-

We hope to have demonstrated that qualitative-interpretivist studies, in general, and those employing a ‘native’, in particular, are valuable for unravelling some of the salient features of intuition and creativity (Stierand & Dörfler, 2014) that are embodied and atheoretical (Chia, 2003), and, otherwise would remain largely ‘unspoken and unspeakable’ (Stierand, 2015). Our plan is to extend our research into several other directions. First, we plan to conduct more interviews with expert chefs to bolster our findings; we are particularly interested in interviewing chefs outside Europe. Second, we plan to extend our inquiry into other domains such as science, art, and creative teams in organizations. Therefore our findings should be regarded as provisional.

ACKNOWLEDGEMENTS
We are very grateful to special issue editor Paul Sowden and the two anonymous reviewers for their constructive and knowledgeable comments and recommendations that truly contributed to improve our paper.

REFERENCES


