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The Proof Is in the Pudding. On ‘Truth to Materials’ in the Sociology of Translations, Followed by an Attempt to Improve It.

(Cooking Michael Guggenheim and Florian Keller, Photography Andrea Ganz)

Why are the sociologists stuck with writing? Howard Becker says they are conservative. But surely, they are not more conservative than say biologists, and given their rhetorics, they more often try to be “radical”. Why then? Because they are a) believing in a instrumental objectivity à la Galison, while they know at the same time, that the received instruments to produce such objectivity, such as photocameras, do not produce such objectivity for the very knowledge objects they are interested in. The argument against photography, after all is, that you cannot take a picture of anomie, stratification, or an obligatory passage point. The precision and “realism” of photography is not “sociological”, it captures the wrinkles on a face, but not how these wrinkles are part of a habitus of, say, mining people (this argument can easily be disputed, see Becker, but that is not the point here). In short, technological objectivity does not really help sociology, because the kind of data sociology is interested in, elude mechanical objectivity. This is not merely an argument by statisticians. It is also an argument in qualitative sociology.

Compare this to some random technological setup in biology: When Hanns Hofmann wants to find out why and when male exemplars of *Astatilapia burtoni* change from servient to dominant, the combination of a precise video recording with a measurement of hormone levels can help answer these questions. The problem here isn’t simply “interpretation”. As has been shown in STS, also biological pictures need to be interpreted, otherwise they do not make sense. The problem is that

For writing, sociology has long accepted that it is a mediating, a creative technology. This is exactly the power of it. But sociology has difficulties of translating this insight into other media, because in other media, it forces sociology to for example prefer drawing to photographs. But drawing, although it could perform for visual data, what a concept such as obligatory passage point does for textual data, seems to be a non-technological, and thus non-scientific medium.

1 Amuse Bouche

What could it mean to use cooking as a medium or translation device?¹ It is striking how much STS continues to work with writing as a single medium. I do not refer here to the objects of research. Clearly, these have widened and nowadays routinely include visual documents, including films and TV-shows, documents from the Internet, as well as analyses of noise and music, food, drinks, odours and touch. Indeed one of the central preoccupations of STS, and of the sociology of translations in particular was to research how others, mostly scientists and artists, “translate” the world into objects and inscriptions. Thereby, a rich repertoire of such translation techniques has been found and documented. This article seeks specifically to contribute to a literature that has tried to analyse the production and consumption of food for a sociology of translations such as the works by Antoine Hennion , 2005, Geneviève Teil , 2001 and Annemarie Mol , 2008, works that expand on other anthropological and sociological studies of food and smell such as those by Elias , 1989 or more recently Cunha and Durand , 1999, Gary Alan Fine , 1996, or Jürgen Raab , 2001.

But with regard to the media and translation techniques that scholars use in the sociology of translation to document and display what they have found out, the sociology of translation, as sociology in general is an impoverished science. In this article I want to discuss why this is the case and I want to report from an attempt to solve this problem for the realm of taste and smell. What follows focuses on the sociology of translation, however, many of the points also apply to STS and sociology in general.

I begin by reconstructing how the sociology of translation is based on the claim to truth to materials (2.1). I contend that if this claim holds true, the sociology of translation fails its own claim by taking shortcuts from taste to text. In the next paragraph (2.2) I explain why the aspiration of truth to materials is a good one: It is the basis for hardening a science. However, as I show in the following paragraph (2.3.), the sociology of translation is founded on a belief in mechanical objectivity that excludes all other forms of translation except texts. This prevents the sociology of translation from using other media and thus from becoming a harder science. However, the belief in mechanical objectivity does not extend to writing itself, as I demonstrate in (2.4.). Also, the belief in mechanical objectivity is not shared by other sciences of taste such as food science (2.5). Rather than trying to turn taste into instances of mechanical objectivity, I propose to follow the example of writing. The sociology of translations can use more creative forms of translation in those areas where devices that would allow mechanical objectivity are absent.

What follows in the third part is a buffet, an offer of various attempts to create such more nuanced translations in the field of a sociology of translations of food and cooking. I report from an buffet that I created with Florian Keller as a symposium comment. Here I try to show on several levels how cooking can serve as a medium for sociology of translations that allows to represent experi-

¹ Many thanks to Jörg Potthast, Monika Krause, Michalis Kontopodis, all the participants at the GWTF/STS-CH workshop on “die fünf Sinne der Wissenschaften” and the reviewers and editors of this special issue for enormously helpful comments.

ences of smell and taste. To conclude, I offer as dessert some further ideas how to develop the themes of this article.

2 Starter: Writing about Eating is Like Dancing About Architecture²

2.1 The Sociology of Translation and Its Claim to Truth to Materials

The central preoccupation of the sociology of translations is to strive for a sociology that gives justice to its objects rather than to take shortcuts into sociological abstractions. The task of sociology is not to explain phenomena away, but to elucidate their empirical existence by following attachments, networks and translations. Latour writes that sociology can only differentiate good from bad attachments, when referring to “justice immanent to things” (Latour, 1999a: 25). Despite Latour’s claim that “we have never been modern” he borrows directly from deeply modernist impulses striving for “truth to materials”.

Truth to materials³ is and was a central claim of modern design and architecture. The guiding principle of this idea is that a sculptor, a designer or an architect should use a material for what it is and according to the properties it possesses and not against it (Bandmann, 1971). Modernist designers would use exposed concrete, rather than to paint wooden grain or conceal it with a layer of brickwork. Designers should not add materials to an object that are unnecessary for the functions of a building or the expressive qualities of a piece of art. Faking materials and using materials against their properties is considered kitsch. Of course, the idea of truth to materials is not merely an aesthetic guideline, but moral and political. It is based on the belief that something like a “true” quality of a material exists and that a designer betrays the material (and possible users and onlookers) if she conceals this truth.

The sociology of translation is guided by a very similar impulse: Do not explain your phenomenon away with something else that is not part of the phenomenon! Stay true to your materials! Do not become a kitsch-sociologist who does away with the properties of the social world with the help of external categories that do not belong to the phenomena that you want to analyse. Antoine Hennion has made the same point in great clarity and detail for the case of “taste”, both in its sociological and culinary meaning, which is also the theme of this article (Hennion, 2007).

Hennion details the mistakes of what he calls “critical” sociology, such as the sociology of Pierre Bourdieu. In critical sociology, according to Hennion, taste is explained away with the social position of a person, by “blind forces that grip you and of which you are ignorant. You think you love things, when no, it is your milieu, your origin, your formation that makes you appreciate them“ (Hennion, 2007: 102). Against such a critical sociology Hennion puts a prop-

² The saying “Writing about music is like dancing about architecture” has been ascribed to Thelonious Monk, Elvis Costello, Frank Zappa, Laurie Anderson and various others.

³ In German, the term is “Materialgerechtigkeit”, which is more precise. “Gerechtigkeit” implies not an epistemological relationship to material, but a doing justice to materials, in the sense of being fair to them, by considering the right features. “Materialgerechtigkeit” in that sense already accepts a translation, but it asks for an adequate translation as opposed to a distorting one.

erly „reflexive“ sociology, whereby reflexivity is a kind of collective work that performs taste „at once a central modality of amateur’s activities, a modality of the presence of objects, and a necessary method for the sociologist“ (Hennion, 2007: 107).

The central implication of reflexivity is „its tie with the activity itself (in other words, to continue outrageously to simplify the question, turning from the actors to the actors, and from the actors to objects – and vice versa). No activity can be defined outside of its own accomplishment, the support, the frames by which, making emerge in the same gesture its participants and its objects, it defines ‘itself’“ (Hennion, 2007: 107).

This is the imperative of truth to materials of the sociology of translation: never explain an activity with something „outside its own accomplishment“! From this premise follow some methodological problems, since if a social practice such as taste has to be understood within itself, how is it possible for a sociologist (who is an external observer) to reconstruct it?

As Hennion remarks himself, the sociologist cannot take „the taste of wine or a musical object [as] given“ but has to reconstruct them as „a result from a performance by the taster, a performance that relies on techniques, corporeal training, repeated experiments“ (Hennion, 2007: 108). Since these performances are deeply embodied, sociology runs into the classic problem of phenomenology that bodily experiences cannot be transmitted from one person to the other. This is why, for Hennion, the “the primary sociologists of taste are the amateurs themselves. It is not possible for the exterior observer, the sociologist, to observe taste in the same way that they themselves think that the amateur looks at a work of art“ (Hennion, 2007: 108). But because the amateur does not write a book of sociology herself, the sociologist needs to translate what the amateur does and experiences into a text.

What the sociology of translation ends up with, is to reconstruct the experience of taste through observing amateurs and reporting what the amateur says. The sociology of translation aims to keep the experiences of the amateurs as *experiences* of amateurs. What it ends up doing however, is to translate the experiences into the words of amateurs elicited through interviews, into observations from sociological observers and finally into sociological descriptions. What happens in these translations are jumps from one medium to the other. These are jumps from an experience of smell and taste into words and books, and these jumps are not accounted for. The jumps do not explain away the experiences into social class but they explain away the experiences into other media. From the viewpoint of truth to materials it is questionable whether this is so much better than jumping to class.

The sociology of translations fails to adequately translate the senses, because it lacks media and technologies to do so. In other words, the truth to materials of the sociology of translation holds as a critique of critical sociology, but does not extend to its own practice. True, the sociology of translation takes other, and maybe fewer shortcuts than critical sociology in translating taste into sociology. It adds some interim steps by first translating the experience of amateurs into descriptive texts, but it still does huge unaccounted translation jumps.

One step out of this impasse is to claim that any scientific text needs to translate its objects, which is undoubtedly true. But then one would not understand

why the sociology of translation is so critical of critical sociology. To understand the claim for truth to material and why sociology might want to go on improving on it, one needs to understand why translation jumps are a problem.

2.2 Science as Good Translations

As Bruno Latour has argued, the sciences generate facts by transforming their objects step by step, by creating links between different forms of “inscriptions” to form networks (Latour, 1986). A fact holds, if the cascade of translations from the object into its inscriptions is made durable. The more steps between objects and description and the better each step is based on agreed upon and possibly black-boxed procedures, the stronger the facts.

Such translations need not depend on high-tech. The stabilization of facts, according to Latour, is based on the stabilization of networks. What counts is the minimization of the jumps from one translation to the next and the subsequent stabilization of the results. As Latour has shown in his example of the Amazonian rainforest biology, the translation of inscriptions, from soil sample to a scientific paper, can occur by very simple technologies (Latour, 1999b, chapter 2). The creativity of science, as countless studies have shown, is the invention of new tools and new forms to translate the world into facts by intervening into the world with various devices.

However, while some disciplines have been extremely prolific in creating new forms and tools of translation, the sociology of translation has been rather conservative. Latour has proposed himself that sociology should dare to intervene and allow for “things [to] strike back” (Latour, 2000). The conservatism of the sociology of translation is based on a strangely split view of translation tools: for writing it accepts complex translation processes, including very complex and creative forms. For every other sense it only accepts media that lend themselves to mechanical objectivity and ignores everything else.

2.3 The Special Status of Writing as Translation Tool

Let me first elucidate the special role of language and writing: In the sociology of translation, as in sociology in general, the use of language as a tool is accepted to add items to the societal stock of existing text. In a most basic sense, this is unavoidable: Each sociological text is nothing but another text, another description, another invention, another carefully crafted cultural production added to the stock of existing texts. In a more positive sense, sociology as a “third culture” between literature and science has always been acknowledging that its own production of texts is not merely an instance of mechanical objectivity, but also a form of translation, a creative process (Lepenies, 1988). Since the debates on reflexivity that emerged in anthropology and spread to sociology this view has become accentuated (Clifford/Marcus, 1986; Woolgar, 1988). More specifically, it is accepted to invent new words and to add new forms of description to the stock of existing ones. Think of “anomie”, “unintended consequences” or “obligatory passage point”. These are clearly very complex translations of societal facts, “inventions” by the social sciences that add new ways to see the world (Deutsch et al., 1986). Social scientists would probably not deny that these conceptual inventions are scientific, just because they are inventions. This holds true not only for individual terms, but also for theoretical and empirical texts in general. In sum, for the case of language, the sociology of translation does not consider it problematic to create its own inscrip-

tions and transformation devices that produce the phenomena one is trying to capture. But because it does not treat writing devices on a par with other devices, many possible forms of translation appear to be outside of the field.

2.4 Sociology's Belief in Mechanical Objectivity

The reason why the sociology of translation does not include other media and work with other senses is based in a strong belief in what Lorraine Daston and Peter Galison call mechanical objectivity. "By mechanical objectivity we mean the insistent drive to repress the willful intervention of the artist-author, and to put in its stead a set of procedures that would, as it were, move nature to the page through a strict protocol, if not automatically. This sometimes mean[s] using an actual machine" (Daston/Galison, 2007: 121).

The sociology of translation only accepts writing, calculation technologies and sometimes photographs and excludes almost all other technologies and senses. The belief in mechanical objectivity implies that diagrams, words and photographs are acceptable, because the sociology of translation assumes that the objects portrayed get onto the film or the piece of paper without artistic distortion. Visual data have a clear advantage here over smell, touch and sound: They are of the same materiality as writing and can be published together in dissemination media such as books and scholarly journals.

As Felix Keller has shown, in sociology in general, even photographs are on the decline (Keller, 2006). In his analysis of the *American Journal of Sociology*, Keller shows that the number of photographs and also of non-statistical diagrams has constantly declined. He explains the decline by modern sociology's conception of society: According to sociology, society or culture is not composed of humans, but of interaction, communication, habitus, structures, networks, culture, neither of which can be photographed. Society refuses to be visually captured by technologies that provide mechanical objectivity.

In this scheme, other visualization techniques that do not rely on mechanical objectivity but on more complex forms of translations are already excluded. The use of sketches, drawings, wax figures, or cardboard models, media that are or at least were firmly established in disciplines such as biology, medicine and architecture cannot be found in the sociology of translation, as in sociology in general for a rare exception based on drawing, see (Kräftner/Kröll, 2009). Even visual sociology after the reflexive turn is mostly based on film and photography and ultimately mechanical objectivity (Harper, 1998). Drawing, sketches etc. are considered to be art forms (as opposed to science), because they seem to be based on the whims of the drawer, rather than the nature of the object. They do not lend themselves to mechanical objectivity. These forms of representation are considered to be so unscientific that they are not even explicitly forbidden, but are merely repressed forms. This also holds for other technologies and other senses such as touch, hearing and sound, or cooking, smell and taste.

For sound, at least the possibility of mechanical reproduction exists and it is used in a small field called soundscape studies (Schafer, 1994). In other instances recordings of music are used in bibliographies, as things that can be referenced. The social scientist does not have to do the recording, because the recording already exists. In ethnomusicology, sound recording is the medium of choice, but again, the approach is one of mechanical reproduction, rather

than working with the materials.⁴

Another instance is sound recording as a method for interview recording. This is a common use of recordings in the social sciences and indeed has changed how sociologists and anthropologists conduct interviews (Lee, 2004). However, interview recordings are rarely understood as sound recordings, but as mechanical devices to transform spoken words into text, i.e. as extensions of textual devices rather than sound devices (if a machine were invented that could directly transcribe interviews into text, no doubt such a machine would immediately replace sound-recording). In fact, the widespread availability of sound recording has rather led to a pauperization of what is “recorded” in an interview: in the 1920ies, a “verbatim interview” recorded with pencil and without tape recorders, would contain a „report of the interview, in anecdotal form, including gestures, facial expressions, questions, and remarks of the interviewer“ (Cavan, 1929: 107; quoted in Lee, 2004: 870). Tape recording has led to an ever-increasing precision in transcription techniques at the expense of non-recordable instances of the interview that do not lend themselves to mechanical objectivity.

For smell and taste, no mechanical recording yet exists. Technologies to analyse and reproduce smells are being developed, but they have yet to mature, and the social sciences so far have not shown any interest in them. At the moment, this is more an issue for the perfume and advertising industry (see the contribution by Bernadette Emsenhuber in this issue). If the social sciences need to use smell and taste as media, they cannot resort to mechanical objectivity, but have to resort to other forms of representation.

In the social sciences taste and smell are almost exclusively translated directly into text, as for example when Annemarie Mol eats an apple (Mol, 2008). But even the social scientist actually engaging in eating is an exception. It is far more common, and more acceptable to the moral standards of social science to reproduce and analyse taste and smell descriptions that already exist: Texts by or ethnographies of wine tasters (Teil, 2001; Teil/Hennion, 2004), interviewing and observing cooks and eaters (Fine, 1996), archival sources and literature about the sounds or smells of a city (Corbin, 1986).

In short, in the sociology of translations, as in sociology in general, only two ways of working with bodily experience exist: Either one resorts to pre-existing devices that seem to allow mechanical objectivity and that are treated as if they were no translation devices, or one jumps directly to text when such devices are not available.

2.5 How to do Translation in the Field of Food and Smell

One of the most obvious places where this omission can be observed is in the sociology of taste and smell, and it becomes immediately apparent when comparing sociology to other sciences. Two interrelated traditions where it does not hold have can serve as exemplars here. First, there is a research field that can be described as sensory research for a recent overview see: (Finger, 2009).

⁴ There are rare but interesting exceptions such as the works of Wayne G. Marshall a.k.a Wayne and Wax, a DJ and ethnomusicologist, whose works seamlessly combines academic texts about caribbean music, annotated DJ-mixes and his own productions that extend, exemplify but also critically discuss his research subject in the format of music, see <http://wayneandwax.com>.

Researchers let subjects taste food with the goal of finding out about why (different kinds of) people (dis-)like specific smells and tastes. How do we smell apples? What makes something taste bitter? To devise such experiments, experimenters have to cook or at least choose food, then people have to eat and finally the process of sensory experience has to be recorded. The research interest is just as in the sociology of translation focussed on differences in perception of different people, without explaining the taste sensation away with recourse to class. It differs from the sociology of translation, because the researchers themselves offer the subjects food. The researchers decide on the tastes and smells they want to research and they create the consumption situations themselves; they do not leave these decisions to the research subjects. Such research is similar to the method of photo elicitation in visual sociology (Harper, 2002): a cultural product is presented to people in order to elicit observations about this product and thereby find out about culturally varying perceptions.

A second field of research is food science: This is like the engineering continuation of sensory research. Here the goal is to create new forms of food and drink, based on knowledge derived from the first field. A research question might be: How is it possible to create a sandwich that can be frozen and then reheated and the breadcrumb stays crisp? The research starts with known cultural preferences for and practices that concern specific kinds of foods: people like sandwiches; they like to buy frozen food in supermarkets, but they do not like the breadcrumb limp. From these preferences, food science goes into engineering the very products (Howard et al., 2004) – rather than limiting itself to the description of how people eat limp sandwiches (as the sociology of translation would do) or telling people to buy fresh sandwiches (as critical or interventionist sociology would do).

The success and acceptance of such research cannot be inferred from the physical and chemical properties of the products. It is one of the mysteries of food and drink that different people judge very differently. Thus new developments in food and drink have to be tested by real eaters, both by professionally trained sensory technicians as well as lay people.

Food science is a science that routinely produces new kinds of smells, tastes and textures and produces data by consuming these smells and tastes or having others consume them. In sensory science, the hardness of data comes from knowing both the tastes and smells and the reactions of consumers. In sociology so far, the food and taste produced have earned little analysis, let alone the idea that sociologists could produce those smells and tastes themselves.

What follows is a first attempt to fill the missing gap by producing smells and tastes as media for a sociology of translation. It is a first attempt to complement ink and paper with heart and brains. It is a trial to ultimately recreate full networks that go all the way from food products, to the stove to the mouth and nose of eaters and a description of these and the reactions of the eaters. It also goes back to understanding the audience of a sociology of translation not merely as “virtual witnesses”, who read and who are made to believe the writings, but as embodied witnesses (Shapin/Schaffer, 1985: 55ff.). I try to include the bodily sensations into the analytical instruments of a sociology of translation. As detailed above, these first attempts to do so cannot be easily classified. These are first attempts at widening the spectrum of media (for further exam-

ples see the contribution of Bernd Kräftner and Judith Kröll in this volume). They are defective in many ways, and they cannot do justice to a new research program that is still in its birth also see (Guggenheim et al., 2011). Necessarily, these first steps borrow from many precursors and venture into other fields, such as sensory science, food science, cooking, as well as installation and performance art. Most notably, they profit from the idea of understanding cooking not as refinement of recipes but as de- and reconstruction of smells and tastes and social situations (misleadingly sometimes called “molecular gastronomy” and originally developed by practitioners in Chemistry and Physics (McGee, 1984), as well as chefs, such as Heston Blumenthal, Ferran Adria, Wylie Dufresne and Grant Achatz. They equally profit from the works of Daniel Spörri, an artist who ran a restaurant called “Spörri” in Düsseldorf in which he created various dishes that questioned what and how we eat (Hatch, 2003).

3 Buffet: From Spinach to Brain

From Spinach to Brain was a commentary in the form of food, taste and smell to a scientific workshop with the title “Emotions on a Plate”. The workshop discussed the relationship of food and emotions. It highlighted the complex relationship of sensory and cultural reactions to different kinds of food. The workshop was held on March 20th and 21st at Collegium Helveticum, ETH Zürich. The menu was designed, prepared and presented together with Florian Keller, my long-standing collaborator in various cooking projects. We understood our task as if we were invited to be discussants at a conference, with the exception that the media for our comment was not restricted to words but included food. The food translated some of the talks back to the media and sensations that were subject of these talks. We reversed the translation chains, by re-opening the black boxes and re-arranging the contents and thereby creating a bodily experiences that allowed to experience but also question the “data” to which the talks referred.

As a comment, the buffet was not proper research. We did not have the resources and the time needed to systematically vary the dishes and to record the experiences of the eaters. As a comment, the buffet posed questions to reshape the discussion and that allow to see how proper research in a sociology of translation could be pursued. Our menu asked questions and added further examples and illustrations to the talks. Some of these questions and comments directly addressed specific speakers, some were more general and raised theoretical and conceptual issues implicated by the workshop.

The program of the workshop was as follows:

20. March, 19.15

Feeding, Feeling, Thinking: Historical and Contemporary Dietetics
(Steven Shapin)

21. March

09:30-9:45 Opening Remarks and Chair (J. Tanner)

09:45-10:15 Sensory Aspects of Food Processing (F. Escher/J. Nuessli)

10:15-10:45 Molecular Taste Physiology of Tongue and Gut (J. le Coultre)

11:00-11:15 Comment (S. Shapin)

11:15-12:15 Discussion
12:30-14:00 Lunch
14:00-14:15 Opening Remarks and Chair (G. Folkers)
14:15-14:45 Eating and Communication (A. Linke)
14:45-15:15 Food Fictions. Visions of the Past and Radical Trends (St. Siegrist)
15:30-15:45 Comment (J. Tanner)
15:45-16:30 Discussion

We prepared the following menu:

Spinach-Puree with Cream, Cima di Rapa Puree with Cream (one of them with Cannabis Sativa, announced, but not disclosed which one)

Four kinds of Pommes Duchesses

Rice-A-Roni® Spanish Rice

Chicken-Surimi-Terrine with Citrus-Walnut-Capers-Salsa

“Pflüdder und Glüggis”: Veal Heart on a Bed of Swiss Chard Topped with Pears Cooked in Syrup

Veal Tongue with Saffronised Letter-Salad on Salsa Verde

Veal Brain with Cauliflower topped with Brösel

Rice Pudding with Plum-Compote and Pink Pepper

Some remarks on the presentation of the menu. The menu was served as a buffet. We brought one course after the other and showed them to the audience (see figure 1). This was accompanied by an explanation of the respective course. It is impossible here to recreate this setup and the many possibilities how presentation and talk interplay with the knowledge of an audience of a symposium. I therefore try to explain some of the links between what we cooked and the themes of the symposium.

3.1 Symposium, or: The History of Technology of Food Preparation and its Relationship to Scientific Meetings

The first theme of our menu refers to the setting of the menu itself, and the technologies used to produce it. As argued above, using cooking as medium for sociology is unusual, but using cooking as medium for science is not. Both the meal for scientists and the use of technologies to produce such a meal refer to a defining historical location for STS and the sociology of translation. This history was embodied in one single dish: the cauliflower, which we cooked in a pressure cooker (figure 1). The pressure cooker allows to realign STS with its own re-writing of the history of science. First of all, it allows linking the very act of cooking and eating as a tool of translation back to the history of science.

The pressure cooker is the missing link between our buffet at the Collegium and a true “symposium”. Originally, in Plato’s time, the symposium was not a meeting of scientists giving talks, but a drinking party – symposion literally means to drink together. The participants of a symposium would lie on pillowed couches, talk, be entertained by songs and dance, eat, drink and debate.

That symposium has come to mean a purely scientific activity dates to 1784 according to an etymological source (etymonline, 2010).

A hundred years before this shift of meaning, the Royal Society was founded as the first organization to discuss scientific experiments and thus as an organizational container to such symposia. Usually, a meeting of the Royal Society involved some scholars who would show experiments to each other. An assistant, whose name was Denis Papin, usually performed them. He was a French doctor, who moved with a recommendation by Huygens to London to work in the laboratory of the famous Robert Boyle. From the diary of John Evelyn we know of one special event at the Royal Society announced as a “philosophical supper.” The diary entry for the 12th of April 1682 begins as follows:

„I went this afternoon with several of the Royal Society to a supper which was all dressed, both fish and flesh, in Monsieur Papin's digestors, by which the hardest bones of beef itself, and mutton, were made as soft as cheese, without water or other liquor, and with less than eight ounces of coals, producing an incredible quantity of gravy; and for close of all, a jelly made of the bones of beef, the best for clearness and good relish, and the most delicious that I had ever seen, or tasted.“ (Evelyn, 2009: 393)

The philosophical supper, in a curious way, brought the symposium back to its roots: men of science eating and drinking together and discussing experiments. However, what had changed in comparison to the Greeks was the fact that the philosophical supper used the cooking and eating as an integral part of demonstrating new experiments. Such a fusion of improving cooking technologies as demonstrations has not been repeated until the now famous “workshops”, rather than symposia – on „Molecular and Physical Gastronomy” in Erice, Sicily that were started in 1992 by Harold McGee, Nikolas Kurti and Elizabeth Cawdry Thomas (McGee, 2008).

The digester demonstrated at the supper was a precursor of the modern pressure cooker. It was a continuation of the experiments with the air pump, the central invention by Boyle. The digester used the air pump technology to seal a container against the surrounding air and combined it with a stove. The resulting machine allowed heating food and air in the sealed container to create higher than atmospheric air pressure. This in turn creates higher temperatures inside the container, because the boiling point of water increases with higher pressure, causing the food to cook much faster. From Steven Shapin's research we learn that Papin was an “invisible technician” (Shapin, 1989); he is the only assistant of Boyle whose name has been passed on. At the time, experimenters such as Boyle only supervised work; they did not conduct it themselves. Papin was employed by Boyle and he did most of the experimental work on the air-pump, proving that the vacuum exists and he even wrote the papers that made Boyle famous. As Boyle acknowledged: "Some few of these inferences owe themselves more to my assistant than to me" (Shapin, 1989: 560). As Shapin shows, the technicians were invisible, because the “order of experiment” in 17th century England required a gentleman, a credible person to be the one credited with discoveries, while handiwork did not count: „Boyle was the author because Boyle possessed authority“ (Shapin, 1989: 560).

The digester is the major invention by Papin. It turned him from an invisible technician into an experimenter in his own right. The philosophical supper allowed Papin to become himself a credible experimenter, an author with the authority to speak for his own experiments and his name on the cover of two books on his invention “A new Digester of Engine for Softning Bones, Containing the Description of its Make and Use in these Particulars: viz. Cookery,

Voyages at Sea, Confectionary, Making of Drinks, Chymistry, and Dying with an Account of the Price a good big Engine will cost, and of the Profit it will afford” (Papin, 1681, 1687).

More than four hundred years later, in the social sciences, we do not even have invisible technicians with regard to how we translate food and smell. By using Papin’s invention to serve Steven Shapin some cauliflower, we made the step from invisible technicians to credible experimenters in the social sciences (we also worked as caterers for the Collegium Helveticum, doing ‘normal’ cooking for workshops and symposia, and most often, the academics treated us for what we were: invisible technicians).⁵

3.2 Translation and Popularization

Papin’s story relates to a second set of translation problems. The sociology of translations, as it restricts itself to (academic) writing as an acceptable presentation format loses many people as possible audience. While the increasing pressure to reach “the population” and to popularize one’s work can be met by writing for newspapers, a typical move by other sciences is to allow the public witness the translation processes they perform. This is usually done by public demonstrations of experiments, by exhibiting lab equipment or objects produced in labs, or open labs during science weeks. Sociology has difficulties of doing so, because of its lack of interest in its own translation practices. (Indeed: this is not because translation does not take place, but sociologists do not demonstrate in public how an interview is recorded, transcribed, coded and finally turned into a scientific article). Our buffet can be seen as one translation step to popularize the sociology of translation of eating and cooking. Again, we follow in the footsteps of Papin and his pressure cooker.

The digester not only made Papin an author, it was also a tool for popularizing his work at the Royal Society. Papin understood that Boyle’s work – or should we say: his work undertaken in Boyle’s name – remained within the confines of gentlemen, not least because “being writ in Latine, and not giving the Description of the Engine, nor the ways how to use it safely for want of sufficient Tryals.” (Papin, 1681 preface, no pages). His new book should be addressed to those who were excluded from the Royal Society and thus written „in the vulgar Tongue for the use of such Housekeepers and Tradesmen as may have occasion for it“. (Papin, 1681, Ibid).

That the digester was a cooking device was only consequential in his quest for popularizing the new science: „...cookery is such an ancient Art, the use whereof is so general and so frequent, and people have been so earnest upon improving of it, that it seems if any could be brought to perfection, this should be it: nevertheless no body can deny but it will be now considerably improved, seeing by the help of the Engine here treated of, the oldest and hardest Cow-Beef may be made as tender and as savoury as young and choice meat.“ (Papin, 1681, *ibid.*). The digester allowed him to popularize his new inventions not because he believed in some abstract duty of popularizing science, but because he understood that cooking was the field where progress would immediately appeal to „Housekeepers and Tradesmen“.

⁵ Sometimes we were even given a tip by the guests. Although we were paid directly by the Collegium and we also held at the same time other, academic jobs.

We have learnt from Shapin and Schaffer that demonstrations in front of gentlemen inside the Royal Society were central for the credibility of the new kinds of experimentation developed by Boyle and his invisible technicians. For Papin in his attempt to reach a wider audience such experiments in front of gentlemen could not be enough. In his second book on the digester, he complains: „Very few people have been willing to make use of it“ (Papin, 1687, "to the reader", no pages). Writing in English is not enough, Papin understood, thus he had to bring the demonstrations to the people: “For my part that I may not be found wanting in promoting the engines treated of in these papers, I do not only explain as clearly as I can, all that I know about the same, but I undertake to let people see them try'd once a week, in Black-Fryars, in Water-Lane, at Mr. Boissonets, over against the Blew Boot; every Moonday at three of the Clock in the Afternoon.“ (Papin, 1687, Ibid.). But somehow, Papin did not really trust his own popularization; he feared, rather than a lack of attendance, being overrun and thus reverted to the authority of the Royal Society: „...but to avoid Confusion and crowding in of unknown People, those that will do me the Honour to come, are desired to bring along with them a Recommendation from any of the members of the Royal Society.“ (Papin, 1687, Ibid.). Papin became one of the first popularisers and was, as popularization has been ever since, plagued by fears of being too popular.

We were not plagued by fears of being too popular. Our task was to cook for a select group of scholars. But we employed the same techniques as Papin to overcome the difficulties that texts in the sociology of translation pose by “being writ in sociology-slang” to make them understandable for an interdisciplinary group. We translated our contribution with the help of Papin’s pressure cooker into something edible and therefore comprehensible.

3.3 Eating Physiology and Dietetics: Cooked Re-Entrées

A central translation problem for a sociology of translation concerns the embodied nature of emotions, and the difficulty to translate them into academic language. Although the sociology of translation has done a lot of work on how subjectivity and the relationship to one’s body is mediated by technologies see for example (Cussins, 1998), it has difficulties in doing such translation work because of the parallel jump from body to language and from observed to observer. This double problem is obviously also at play when researching emotions related to food. How do I know how it feels to eat an apple, a snail, or a mackerel?

The question here is how the (emotional) experience of food relates to theories about the body. Do I eat an apple differently if I believe that eating apples is good for my digestion because it contains a lot of vitamins or if I believe that eating an apple makes me more feminine? How can a sociology of translations get hold of these translations from theories of the body to eating experiences?

In our buffet we dealt with this question in two ways: First we related to theories about the organs that perceive food and create the emotions. Second we attempted to produce some of these emotions, specifically disgust, to comment on changing cultural notions thereof.

Steven Shapin talked in his paper about Galenic theories of dietetics. A central element of Galenic dietetics was the assumption that what one eats directly relates to emotions. For example, melancholic people should not eat dry and

cold food since it would only exaggerate depressive moods. Food was also related to general personal traits, such as the idea that meat would create virility and vegetables femininity. English critiques of society implicated that humans eat meat to exert power over other creatures. Dietetics, as Shapin pointed out, were theories that closely linked theories about food with theories of a good life and emotions. Dietetics was comprised of one soul, one thing that had to be balanced, and that included the human body, its emotions and what it eats. Today, Shapin claims, the word diet merely relates to a very narrow understanding of food as composed of specific properties. Dietary programs of doctors are restricted to prevent very specific diseases (such as, for example, coronary heart disease). Humans are considered to be weak, suspect to addiction and eating the wrong things, but open to be persuaded by scientific results: We are expected to understand that scientists have found out that saturated fats lead to coronary disease and therefore we are expected to lower our consumption of bacon. The brain has become detached from the tongue and the heart, in terms of physiology as well as in terms of dietetics and metaphors.

In our menu, the three courses of heart (Figure 2), tongue (Figure 3) and brain (above, Figure 1, between the cauliflower) related to these issues in complex ways. They were, first of all, cooked demonstrations of the organs involved in these issues. We cooked “re-entrées”, to adopt the apt term “re-entry” of systems theory. A re-entry is a “re-introduction of the distinction between the system and the environment into the system” (Luhmann, 1992: 83). A re-entrée is an eaten re-entry. The organs that create the difference between the body and the world, and at the same time open the body up to the world, the brain, the heart and the tongue, are eaten and brought back into the body. The organs also performed the shift from Galenic theories, which assume the bowels define on diets to modern theories that see the brain as central.

On a more general level, the whole buffet was a second level re-entrée: Academics who had just given talks about tongues and language, brains and thinking, sensory science and acidity, were now made to eat what they were talking with and about only a few minutes ago.

Second, the re-entrées also produced in the eaters very visceral sensations of repulsion and disgust. Some of our guests approached these dishes warily; they checked on others if and how much they would spoon on their plates. They ate slowly and in small pieces, always ready to withdraw from the re-entrées. They constantly discussed whether and how much to eat from the dishes and how they smelled, as novices do when introduced to a new activity. These actions, or shall we say behaviours, are in complex ways related to the issues of Shapin’s talk. Contemporary dietetics looks down on seemingly lesser parts of meat. Brains, heart and tongue, despite their relative fatlessness are rarely eaten. Dietetics, as a rational, brain-centred relationship to one’s own body, is at odds with the body’s emotional, bowel-centred impulses of disgust and the medium for this tension is exactly what registers the tension itself. The disgust strongly depends on a visual aspect. Nowadays meat and fish shall not look like its originating object. Many people find it difficult to look at whole dead animals. The “healthy” food that current dietetics advertises is very often food without form. It comes visually cleaned, as tablets, gels, powders and bricks.

3.4 Translating Modes of Perception: The Visual vs. the Olfactory

Another problem for sciences that only use the form of writing are shifts or incongruences between different media and senses. Sociology of translation approaches the problem in a one-sided manner: it takes writing as standard and relegates all other senses to a lower level. The saying “writing about music is like dancing about architecture” captures the translation problems in a more impartial way. Translation is always a problem. Not only is turning taste into language a very complex translation, but eating itself is a far less straightforward practice than we normally assume, because it is by no means restricted to one sense. The experience of what we eat is thoroughly informed and translated by other senses.

Such translations between different media and senses were a third theme of our buffet, focusing on the relationship between the visual and the olfactory. As Escher and Nuessli and also Le Coutre pointed out in their talks, the relationship between different modes of perception and the respective physiology is a complex one. First of all, taste and aroma perception can detect different smells and tastes for which a description on the molecular and physiological level is lacking. As Le Coutre pointed out, lobster and chicken taste similar, but can be differentiated. However, on the physiological level no explanation for these differences can be given. Similarly, as Escher and Nuessli explained, aroma intensity of increasing citric acid levels in candies is different for banana and citrus taste. The difference cannot be accounted for by measuring sugar or acidity levels (Nuessli/Escher, 2009: 442). In short, there is a gap between chemical and physiological descriptions on the one hand and what we taste and smell on the other hand.

The situation is even more complex, because we are not only influenced by the taste and smell as recorded in our mouths and nose, but also by visual appearance. The same potato soup smells differently if it is coloured black or yellow. Escher and Nuessli point out that sensory science is increasingly turning to consumer studies, because neither chemical analysis of products nor professional sensory experiments can deal with the differences in consumer perception (Nuessli/Escher, 2009: 443). Because the differences between people’s perception cannot be found in chemical compounds, the people themselves have to become the subjects of research, but also the measure for the food industry.

What happens in sensory research is comparable with many other areas of science that have been widely described by Science and Technology Studies: experts judgments become replaced by those of lay people (Michael, 1998). Taste and smell become less driven by standards defined by experts and seemingly universal aspects of physiology but by culturally highly specific consumer demands.

In our buffet we demonstrated this problem in various dishes. The chicken and surimi terrine is an invention of ours and we developed it in direct response to Le Coutre (Figure 4). Terrines, composed of blended fish or meat, are well known in French cuisine. By combining chicken and surimi, we blended two tastes that are very close to each other and that result in two smells that are difficult to discern.

Furthermore, by combining poultry and surimi in the terrine, the dish played with cultural stereotypes of processed foods as unnatural and unprocessed foods as natural. Western kitchen has become obsessed with the idea of natural food. Despite Lévi-Strauss' dictum of the cooked as the origin of culture, we have come to believe that food should be as uncooked as possible. Testaments to this view are the countless diets that recommend eating raw products as well as the recent boom in sushi and carpaccio. Surimi, processed and cured fish stabilised with additives and often coloured red to resemble crabmeat, is an entirely natural product that has been invented in Japan in the 12th century. Because of the fact that it is industrially processed and often pretends to be something else than it is, it is suspicious to the Western value of naturalness.

On the other hand, chicken breasts appear to be entirely natural products. However, at least the ones bought in the supermarket come from beings optimised for food production with various technologies, from food to completely controlled living conditions to how they are killed and processed. The only difference in our terrine between the chicken and the surimi was that the former was processed after its death while the latter is processed before. Our terrine, finally, brought them to the same level of processing.

Second, our Pommes Duchesses were a little experiment in perception. We prepared four different kinds of pommes duchesses. Three of them came frozen from different manufacturers and only needed to be baked. One was handmade by us, by cooking potatoes, mashing them, blending them with butter and eggs, dressing the mixture on a baking tray and putting them into the oven. We tried as hard as we could to prepare them as evenly as the factory made ones (figure 5). This put the eaters into the position of comparing and judging the different Duchesses, just as in a proper sensory experiment. But it also raised the question of which Duchesses are considered to be the standard to compare against. Duchesses are nowadays a product that is hardly ever home made. Duchesses are one of the most ubiquitous convenience products while they are comparably difficult to make by hand. It is fair to assume that only a minority of our eaters ever had home-made Duchesses. Our Duchesses test raised the question of whether we have come to take the convenience food as the original and handmade food as the aberration. Pommes Duchesses also featured prominently in the recent acrylamide scares. Acrylamide, a research topic of the panel member Felix Escher (Amrein et al., 2003, 2004), is a chemical compound, believed to be carcinogenic, which develops in baked and fried - but not in boiled - starchy foods, such as in French fries, chips or pommes duchesses. The acrylamide content of potato products rises if they are stored below a certain temperature and the longer the potatoes are cooked. Acrylamide cannot be smelled, which brings us to the next theme.

3.5 Knowledge and Taste

Even more puzzling than the incongruities between our visual and our olfactory senses are the incongruities between what we know and what we smell. We almost never eat without knowing what we eat. Not knowing what we eat poses a fundamental challenge to our bodies that is very difficult to deal with. Food is much more corporeal than any other thing we do and monitoring this intake is central to our wellbeing.

For sociology to translate the phenomenon, it has to get close to it by reconstructing it and it has to research how it operates among different eaters and

with different kinds of foods. A written sociology has difficulties to do these kinds of translations since it cannot grasp the interplay of taste and knowledge. In our buffet we tried to reconstruct the phenomenon as a corporeal experience resulting from a difference between the food and our own verbal accounts of what we served.

Traditionally, monitoring what we eat was regulated by tradition, habit and the fact that for most of history only a small variety of foods have been available. But trade and the industrialisation of foods, the research subject of the commentator Jakob Tanner, have changed this (Tanner, 1999). Food is most often understood today, both in the food industry and in everyday life, not as dishes, menus and ingredients, but as an assemblage of chemicals, nutritional values and additives. The media are full of research results showing that ingredient x causes or prevents cancer, cardiovascular disease or obesity. A whole industry of advice books caters to these fears. The regulation of what we eat has become a complex and constantly changing game of adjusting to the latest products, research results and food fashions. Furthermore, the difference between food, medicine and illegal drugs is fluid. Many culturally accepted stimulants, such as cannabis, tobacco and increasingly alcohol are illegalized. The boundary between food and medication has also become blurred with the food industry inventing the category “functional food” as a form of preventive medicine.⁶

In all these cases the relationship between food intake and bodily effects is difficult to grasp. It is only possible to understand in the very long run and through statistics. Individuals do not know how they relate to the statistics. I may not die from cancer if I have eaten enough spinach. But how will I know, once I die, whether I would have lived longer if I had eaten more spinach? Our food choices are thoroughly guided by science-backed advice and science-induced fears without a direct way to experience these dangers and benefits.

In our menu, this complicated relationship between food and knowledge was a theme of two dishes. The first was the spinach and cima-di-rapa puree, where it returned twice (figure 6). First, as children, many of us had been forced to eat pureed spinach because it contains a lot of iron. Popeye was sold on this idea. A whole popular culture was based on an invisible and inodorous ingredient that was difficult to imagine. Popeye was a 20th century version of popularization: it needed a comic figure to popularize a fact that could, unlike Papin’s digester, not be demonstrated in public. In fact, as it turned out, spinach does not contain that much iron. The claim that spinach contains a lot of iron was based on an error. The physiologist Gustav von Bunge measured the amount of iron in dried spinach and the results were later wrongly applied to fresh spinach (Bunge, 1892).

What is noticeable about this from the perspective of an sociology of translation of eating is not so much the error, but the fact that (not) knowing about

⁶ I have explored the relationship between advice and intake in two other research and exhibition projects: “Straight from the heart. Prevention indices and divinations of researchers” by Bernd Kräftner, Judith Kröll and myself explored how people relate to prevention and advice (Guggenheim et al., 2008. “Self-Service. Luncheonette for Advice and Other Experiments” surveyed the relationship that people have to intake of foods, drugs and medicaments and where they got their knowledge about (Guggenheim et al., 2006).

the measurement error has also changed the perception of eating spinach. We can only speculate about this, but children probably came to hate or love the *taste* of spinach because they liked Popeye or hated their parents' enforcement of eating spinach, both based on an error. Nowadays Popeye is gone for good and spinach has turned from a pureed sludge into a delicate salad ingredient. This is why we put a cima di rapa puree to the side of the spinach. Rather than upgrading spinach we downgraded cima di rapa, a vegetable that has a slightly bitter taste and is a kind of yuppie version of spinach. Other than spinach, which seems to have existed in puréed state only for most of its western culinary existence, cima di rapa is usually eaten intact. Puréeing cima di rapa made it indistinguishable from spinach and the eaters needed to guess which purée was which.

Second, we added a pinch of Cannabis Sativa to one of the purées. We announced that we added Cannabis, but we did not tell the eaters to which purée. Eating the two purées became a sensory experiment for detecting Cannabis. The eaters could be frightened and not eat any of the purees (which nobody did). The eaters could also just eat from one and hope that it does not (or does) contain the cannabis. Then the choice would become a gamble. Or they could eat from both and try to find out, which one contains the Cannabis. This could happen by smelling the Cannabis, which would require the eaters to have a very good nose, made even more difficult because the purées were from different vegetables. It could also happen by experiencing the effects rather than taste. However since the effects of orally consumed cannabis are very slow, the detection also operated on two timescales.

Our eaters, quite predictably, after the first daring subjects made a try, all tried a small amount of both purees. Like this, they neither ran the danger of sleeping through the afternoon's conference programme nor of being seen as timid eaters in a test situation.

The second course in which knowledge and olfaction featured prominently was the Rice-a-Roni dish. We had Rice-a-Roni delivered from the USA by a friend, Andrea Westermann, who was then a visiting scholar in San Diego. She had to smuggle Rice-a-Roni to Switzerland, because Rice-a-Roni is made from GMO-rice. GMOs are forbidden in Switzerland and the public is highly critical of it. Even in the US, Rice-A-Roni does not advertise on its packaging the fact that it contains GMOs. One needs to consult specialist consumer awareness guides such as Greenpeace's "How to Avoid Genetically Engineered Food" to find out (Greenpeace, 2010). By telling our eaters that we cooked Rice-A-Roni for them (the one dish that was more difficult to source than to prepare), we alerted them to the fact that, depending on whom they believed, they would eat something illegal and dangerous. Again, nothing in the visual or olfactory appearance of the dish could have told the eaters about the potential harm. None of our eaters seemed to care.

3.6 Knowledge, Food and Class

If we give up writing as our sole translation device, we can also return in a more reflexive way to Hennion's critique of critical sociology. The move of critical sociology to reduce taste – both in its sociological and culinary meaning – to class does not take taste seriously. But undeniably, a defining feature of taste is class, so how is it possible to introduce class into a sociology of transla-

tions? Rather than describing the effect of class on taste we propose to perform it and render it observable in the wild.

The starting point is again the fact that one needs to know food to taste its social meaning. The olfactory and haptic difference between caviar and salmon roe or between a bottle of Château Pétrus and a bottle of Chianti from the supermarket is far smaller than the different status indicated by them. For an uninitiated person there may be no difference at all or she may honestly prefer salmon roe or Chianti.

These status and food indicators obviously vary by group, place and epoch. To cook these indicators properly is quite difficult, not because it is difficult to find such indicators, but because they are so ubiquitous. Every meal unavoidably is such an indicator, whether it is fish and chips, a pizza with horsemeat salami or fugu. It is the interpreter, not the cook, who turns food into a status indicator. Furthermore, food becomes a status indicator as much through the eating situation as through the food itself. Fried calves brain in a cheap eatery in a hidden corner next to the slaughterhouse is something different from fried calves brain in a Michelin-starred restaurant.

Since we could not vary the eating situation in our buffet, the only possibility to discuss food and class was to speculate on what would be understood as indicators of different groups and classes in our menu. One goal was to choose ingredients and dishes that changed their status over time to indicate this issue. We were both interested in cases of “gesunkenes Kulturgut” (Naumann, 1922), dishes that sank from high status to low status as well as the opposite.

A case for the latter, as already indicated, is spinach: it has turned from deep frozen pseudo healthy junk food to a fashionable salad. Another though much more complicated case are the brains, tongue and hearts. They all have led a life on the lower end of the meat quality until they were recently re-discovered as lean and healthy kinds of meat and now enjoy considerable success in high cuisine – although they never really disappeared.

A case for gesunkenes Kulturgut is Pommes Duchesses, an invention of classical French cuisine, usually served as a side dish to roast beef and other fancy meats. It descended from haute cuisine and lost its appeal as a leftovers dish, or even, as described in cookbooks of the early twentieth century, as a means to elaborately save time and money by first cooking whole potatoes, using them the next day for mashed potatoes and finally for Duchesses. Finally, when freezers became available for ordinary households after the Second World War, they started a career of middle-class modernity par excellence.

The social status of a food also relates very much to how and where and by whom it is prepared, and these facts again vary with time and place. The 1950ies and 1960ies were a time when factory made food was considered to be modern and healthy. The category of junk food did not yet exist and the standardization of such things as fish fingers of pommes duchesses was seen as good. Since the cuisine nouvelle and the global trend towards “health” food, freshness and handmade have become fancy again, while fabricated food and the food industry has gained a bad reputation. Today, prefabricated food in western countries is an indicator of the lower classes. In our menu, this topic was played on with our pommes duchesses that were hand made and opposed to the factory made ones. It was also a theme in the Rice-A-Roni dish, since

the packaging of Rice-A-Roni, the least handmade dish of our menu, features both industrial standardization by printing “same great taste” as well as phantasies of rural hand made cooking with a photograph of a potentially Spanish village (figure 7).

4 Towards an Sociology of Translations with Cooking

I have outlined an argument for why the sociology of translation – as sociology in general – should not refrain from using cooking as a medium and I have discussed an example for doing so. I have started with the observation that the sociology of translation has a policy of mechanical reproduction when it comes to other media than writing. Interview recording is accepted, as is photography and video recording, but drawing and cooking is not. The only way in which STS can communicate about food, cooking and eating is in writing. But thereby it translates it into another medium while ignoring the underlying translation problems.

My suggestion was to include cooking as a medium into the sociology of translation. I have presented the case of a lunch buffet as a workshop comment. The buffet addressed various issues of the workshop with dishes invented specifically for this occasion. Among the themes were the history of technology of cooking, physiology, the difference between the visual and the olfactory and the relationship between knowledge and taste and class.

This was nothing but a first exploration, along with some other similar events. It was a workshop comment, not a proper research project. And it related to a variety of papers given at the workshop, trying to cover a wide ground rather than systematically addressing a specific question. For future projects, other researchers aiming at an extended sociology of translations might venture into more detailed and more focussed cooking. Also, future research could integrate cooking and researching the reactions of eaters more closely and researching the latter in much more detail.

A possible list of research questions to be cooked could include: What is the relationship between cultural taste perception and the development of food and cooking technology? An obvious case in point here is the question how the pressure cooker, but also the microwave change taste perception. This can also be analysed from the opposite direction: How are cultural taste preferences, say for tastes such as umami, or textures such as jellies or foams linked to preparation technologies and the inventions of the food industry?

Another line of inquiry would be to research how (legal) food categorizations are linked to technological changes and taste preferences. For example, the change of Cannabis from a food additive and stimulant to an illegal drug would be an interesting case at hand. Also of high interest would be the definition of what counts as edible and inedible, including cases of pica (MacClancy et al., 2007) – eating what has no nutritional value – and its relationship to food technology and the food industry.

I do not merely propose to do historical and sociological studies on these issues, but to investigate them by systematically cooking this relationship and testing it with eaters and to systematically vary dishes and eaters. I also suggest to invent new dishes based on such investigations and test them with various

eaters. By doing so, sociology could learn a great deal about how cooking and eating relates to taste, class, law, science and technology. It would also become a bit more true to its material and it would become a harder science.

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