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Introduction

- 1 Cooperation between sciences and the industry in the design and development of innovation has been the subject of numerous social science research studies (Perkmann *et al.* 2013), which tend to demonstrate the embedded nature of relations between the two protagonists (Grossetti & Bès 2001) or to question, from a more political perspective, issues such as the “commercialisation of research” (Malissard *et al.* 2003) or justifications from the actors involved (Mesny & Mailhot 2007). In the vast majority of cases it was observed that scientists taking part in innovation dynamics were from the field of “hard” sciences, that is disciplines with applications closely linked to technological fields and involving specific issues regarding the diffusion of the scientific knowledge produced (Evans 2010; Corbel *et al.* 2011). Cooperation between social sciences and the industry has less been analysed¹ and mostly confines the humanities to a role of external observer, outside the scope of research partnership (Audoux & Gillet 2011). However experiences of collaborations between researchers from the humanities and the industry are numerous, either in marketing, for the characterisation of uses or the expectations of potential users (Engel *et al.* 1993; Otnes *et al.* 1997), or to provide an objective reflection on innovation and design processes within companies (Jeantet 1998; Le Masson *et al.* 2006).
- 2 The purpose of this article is precisely to contribute to the exploration of this field of research: the collaboration between the social sciences and industry. More specifically, it aims at providing analytical elements relating to the potential roles of such collaboration in a particularly strategic area for companies: design of innovation policies. Our paper is based on a case study involving a food company that requested assistance from a group of social scientists to take part to the development of an alternative methodology for generating and developing innovations. Through this partnership, researchers in the social anthropology of food and the sociology of innovation undertook a qualitative analysis of the constraints as well as consumers’ nutritional and food behaviours, and a critical analysis of the system set up by the company².
- 3 In this article, we highlight the production of knowledge as driven by researchers in the social sciences, and how this knowledge - which we consider here as an intangible resource - is mobilised, discussed and debated by all protagonists within the company. More specifically, it will show how the knowledge produced has served the company's project to develop innovations and products that are more “just”. This term will be used in both acceptations as fair (*justice*) and pertinent (*justesse*) (Boltanski & Thevenot 1989), thereby allowing us to introduce the duality and tension that may occur regarding the company's expectations. The double meaning of the term “just” reflects the company's desire to design products that can improve the population's health as part of the company's social responsibility. We also refer to the sense of pertinence to designate innovations and products that include detailed knowledge of potential consumers, thus making possible a more precise *a priori* targeting of consumers’ market expectations.
- 4 After explaining the methodology adopted in this research, we will start by depicting the origin of the collaboration by replacing it in the context of the company, and present the group of protagonists who designed and developed the partnership with social science researchers. In this section, we will pay particular attention to the place innovation occupies in the company. The relationship between the diverse developers will be studied through a social science

research approach. Second, we will present in detail the collaboration plan, from the production of knowledge perspective (2.1) and its mobilisation in participatory workshops (2.2). Third, we will focus on the difficulties that arose in the collaboration. We will emphasise the dissonances that characterised the actors' work in terms of time frame and the tensions they caused with developers regarding the obvious contradictory requirements they had to meet within the company (3.1). In addition we stress the difficulty in establishing proof of the added value of the proposed methodology, in particular highlighting the company's internal organisation, but also as a specific way of understanding the role of the humanities and the type of knowledge it helps to generate (3.2).

5 This article is based on a collective research conducted within a multinational food processing company between 2009 and 2014. It is the result of a partnership programme between the company, more precisely the Nutrition and Research team, as represented by its director, and an agro-food engineer and the International Centre for International Research in Agronomy for Development (CIRAD), involving a team of six persons: two researchers, a research engineer, two PhD students and a post-doctoral researcher, specialised in the social anthropology of food and the sociology of innovation. The partnership benefited from public funding from the ANR (France National research agency) via the Agropolis Foundation³. As we will describe it below, a third party of the partnership consisted in a team of social anthropologists from the targeted country, for which the company aimed to improve its knowledge and understanding of the socio-cultural context.

6 The data and results presented here are part of a dual research position: first an action-research stance, in which researchers in the sociology of food have contributed to the production of scientific knowledge about the dietary habits of populations, at the request of the company, through the *FoodStyles* programme presented below (section 2.2). As a next step, a more distanced critical stance was taken - also at the request of the company - in which sociologists of innovation analysed the *FoodStyles* programme itself. With this move, the company sought to change and improve production practices and mobilise knowledge for innovation. Data collected during this second stage have been compiled by combining different tools: a) Semi-structured interviews with innovation actors within the company and its partners concerning their "new innovative approach", who address their own trajectories, innovation practices and views on the proposed system; b) Participant observation during the presentation seminar on the conclusions of a *FoodStyles* study in Ivory Coast. In total, about 30 interviews were conducted: with a dozen employees of the company, and with another dozen local experts involved in the African seminar, and four with social scientists involved in the *FoodStyles* programme⁴.

When the company turns to social sciences: genesis of a rapprochement

Between business and social issues, between local and global: a company under strain?

7 Originally a family firm, the company has become a multinational business in the course of the 20th century, including subsidiaries in 80 countries. After successive mergers and takeovers, the company is today (in 2014) structured around four major divisions based on its diverse activities: fresh dairy products, infant nutrition, water and, more recently, therapeutic nutrition, reflecting the company's overall strategy to position its activities as health-driven. The company's slogan "bringing health through food to as many people as possible" states its mission and expresses its efforts, at least in the discourse, to develop its activities, not only in terms of economics, as a marketer, but also in terms of social justice, as a civic actor (Boltanski & Thévenot 2006)⁵. This ambition was reflected in the company hierarchy that brought about a very recent change in senior management. In support of the CEO, the two deputy managing directors and vice-presidents on the Board embodied until recently (end of 2014) the two sides of the company: the first one in charge of the "economic" implications of the company as a business, while the second saw to the social and financial implications of the company's

development. The firm's two-sided identity has been internalised by the employees in the way they perceive its identity and activity. The image of a "DNA double-helix" was used by some of them to describe it.

- 8 The duality, established as a unified and unifying project, is part of a complex geography, characterised by a high degree of tension between the global strategy and the significant autonomy of national subsidiary companies. In the company's governance, global strategies are deployed transversely to subsidiaries; however, the latter have considerable leeway *vis-à-vis* the Paris headquarters, and as noted by one employee, "*each subsidiary is like a small kingdom within the kingdom.*" Strategies for the creation of subsidiaries are characterised by direct territorial presence, recourse to local partners, and development through mergers with local businesses (Tozanli 1996; Cheriet 2010). Knowledge of local contexts and a strong ability to react are therefore required and this adaptability is today an important source of legitimation for the high degree of subsidiaries' autonomy.

Developing an innovative programme for innovation

- 9 Since 2006, many initiatives have sought to strengthen the social dimension of the company's activities. A fund was established to support the development of businesses with a social purpose as well as projects with social impact (Pestre 2013). Various experiments were conducted in different settings, with a view to alleviate nutritional deficiencies, while contributing to the local economy (creating local factories, setting up sales networks). Guidelines for reducing the sugar and fat contents of products were formulated to accompany the company's specialisation in baby food and medical nutrition, particularly through interactions with the biomedical sciences.

- 10 More recently, in order to address both economic and nutritional issues, and within an organisational context in which subsidiaries had been demanding support to help them meet the company's global strategy, a team with a global outlook, within the Research and Development department of the company based in Paris, developed a project of a different kind. Prior to production, about ten food technicians and researchers in biology and nutrition formed the 'Nutrition and Research' team in a project seeking to better understand the nutritional and socio-cultural issues around food in countries where the company is established. This project was conducted through scientific collaborations, involving not only the biomedical sciences, but also the humanities and the social sciences.

The social sciences as part of the innovative process

- 11 The team leader, who has a PhD in nutrition, played a central role in defining the programme. Given the mission by senior management in the early 2000s to identify how issues of nutrition and public health were re-translated to the subsidiaries, he developed in the course of this work a reflection on the local relevance and, more broadly, on the concept of the *double pertinence* of products. The idea he supported was that in order to best fulfil the nutritional aims of the company while meeting its economic objectives - in other words to be doubly "just" - it is essential to know as much as possible about the contexts and realities of consumers, especially local nutritional issues. It was for this purpose that the *Nutripack* tool was developed: a method for constructing syntheses of nutritional knowledge that can be used by subsidiaries in the countries where they operate.

- 12 In the late 2000s, as a young agro-food research engineer joined the Nutrition and Research team, attention also turned to qualitative approaches with the aim of providing information on the social and cultural aspects of food. Through one of her colleagues, she met a food sociologist from CIRAD with experience in eating behaviour studies in various African and Asian countries. This meeting was a turning point for the young woman and the Nutrition team:

I had never done sociology in my life and suddenly I spent a day listening to him and speaking with him, and I was overwhelmed by everything he told me. I found it fascinating. So, little by little we implemented a methodology to understand food styles in the diverse countries, because I quickly realised that food not only had a physiological side, but also a socio-cultural one, and that food is not just the product, but also means the purchase, preparation, consumption, etc. Finally, I was very quickly immersed in this world which really fascinated me and we introduced a tool which was a real counterpart to Nutripack for nutrition called 'FoodStyles'.

13 The *FoodStyles* tool, which we will present in more detail below, consists in the production of qualitative understanding of food consumption, practices and representations - food styles - of target populations by a subsidiary, from a socio-anthropological point of view. Investigations were to be conducted by sociologists and anthropologists in the country concerned, in collaboration with the CIRAD team mentioned above. The idea with “*FoodStyles*”, associated with *Nutripack* within a comprehensive global tool called *Nutriplanet*, was therefore to identify health and nutritional issues and to better understand factors in consumption changes, practices and representations of 'eaters' (the term, derived from the sociology of food, is preferred to 'consumer'⁶). Such knowledge was supposed to help develop innovative products or training programmes which meet both nutritional issues and are embedded in the social and cultural dynamics of the local population. The postulate, as emphasised by the head of the team, was that these products were to meet the company's objective of 'double pertinence':

[The company] was propelled over a number of years by a rather functional approach (...) and finally the logic of “I sell a product which provides a solution to a problem.” All my discussions with the teams focus on the risk of reporting an issue that does not exist or is not perceived as such by health actors in a country! (...) I am betting we will have much more support and a sustainable business if the problems that we address - and offer a solution to - are real and perceived as such in this particular country.

14 In other words, the idea put forward is that nutritional syntheses, in addition to knowledge acquired through socio-anthropological investigations, would enable subsidiaries to define innovations that are more “just”: better suited to nutritional needs and therefore good for the health of eaters (fair), but that would also blend smoothly with the consumption patterns of clients and therefore be good for the company's economic health (pertinent). The gamble was risky, because the afferent knowledge production process is long to put into place, from data gathering to final analysis. The research centre established relations with local researchers in the human sciences and ensured mediation between both local researchers and the nutrition team.

Translating knowledge into innovation

15 The methodology developed was presented by its designers and defenders as a critical approach, an attempt at emancipation and reflexivity (Goulet & Vinck 2012) regarding the dominant innovation practices within the company. They referred to several past experiences of innovations that failed because of lack of knowledge about eating habits and practices. The stated goal was to utilise this kind of knowledge to change approaches to innovation, nutritional educational programmes and, more generally, the awareness of the company's various actors (employees). In addition, team members in charge of the project did not neglect the market dimension to which the proposed process should lead. Indeed, they aimed to use and highlight the knowledge produced by and with the social science researchers to make a difference.

16 Therefore the team in charge of the project paid particularly close attention to how feedback from the conducted studies was organised. The objective was to provide staff⁷ in the firm subsidiaries with all the knowledge produced in Nutrition and through the socio-anthropology of food, and support them in imagining possible innovative products. The prevalent vision of innovation in the minds of the programme's designers was that of participative innovation, combining a variety of actors, giving them the opportunity to step back from what they do and reflect together on how to be more responsible when faced with nutritional and socio-cultural issues. The project leader, who co-designed the program *FoodStyles*, underlined the value, sensibly strengthening the justness of the innovation envisaged, of bringing together people with different skills and experiences at different positions in the company around the same table (which in itself represents an innovative way of co-working).

17 The system set up by the company to develop an alternative way to generate innovations was conceived through a comprehensive perspective, a rapprochement between the company and consumers, and rapprochement of different 'jobs' within the company. Social sciences, through a CIRAD research group, and the knowledge they produce, were at the heart of this logic. But how precisely is knowledge produced, this intangible resource in which the company has invested and out of which it is expected to develop innovations that are more just? How did

participant researchers invest in this mission and, reciprocally, how did their work, and the knowledge they produced, question the company's employees? This is what we will explore in the following section.

Producing and mobilising knowledge about eaters

- 18 While the strategy and the company's intentions regarding the use of knowledge are clearly highlighted, the question remains on the conditions for the production of this knowledge. Just as we have explored the company's innovative approach, it is also necessary to take into account the intellectual roots/ background of the social scientists involved in this collaboration.

Producing knowledge from field surveys

- 19 *FoodStyles* was designed as a qualitative method for identifying the socio-cultural determinants of the act of eating in specific contexts and populations. To ensure the quality of data and the legitimacy of a method that was foreign to their usual approach to innovation, the Nutrition team asked social scientists to ensure coordination, according to the method and the interests of the different actors involved (the company's subsidiaries, experts, eaters, etc.). The knowledge production approach materialised through two tools, which brought together interests and approaches specific to the company and the social sciences: i) structured mapping of the process of knowledge production, and ii) a document containing the objectives and theoretical framework of the approach. Duration for the completion of the study was about six months, of which two or three months were required for the production of data (collection, analysis and restitution of the research). Through this protocol, the social sciences were therefore introduced into the new approach within a framework that borrowed from the conventional procedures of the company.

The working environment

- 20 Promotion of the program *FoodStyles* was conducted internally, around the issue of taking into account the social and cultural dimensions of food in innovation processes. R&D staff from a local subsidiary, who were the targets of this promotion, asked members of the Nutrition team to organise the study. The first task was to identify local needs through the filter of the framework, which embodied the theoretical and empirical approaches of the *FoodStyles* tool. Hence, the terms of reference for the survey were designed from the outset to seek justness, being adapted to the context and to 'business issues.' Once the terms of reference have been set, the CIRAD study experts and their colleague from the Nutrition team used it to define the profile of the local expert (in the social anthropology of food) to be recruited. They tried to identify a researcher who could collaborate with them for the duration of the research (between 6 to 8 months). Several persons were contacted but refused to work with the firm, so that the team had to turn to personal interrelations.
- 21 The successful recruit was then presented with the research questions, the scope of the study, work schedule, team, methodologies and innovation objectives. This expert, who had graduated in sociology and anthropology, had to use her skills within this frame of reference and build field instruments which were validated by the Nutrition team, CIRAD and the firm subsidiary. This document served therefore as mediation tool between the means (producing knowledge about eaters) and the ends (turning knowledge into innovation and business). The framework was based on two differentiated phases of the investigation. The first objective was to identify the right ('just') questions, those which were relevant, capable of meeting the expectations of the subsidiary and of social issues, and the second presented specific themes in the analysis of food styles. During these two steps, a literature review was conducted to assess the state of available knowledge and to identify possible areas for added value.
- 22 The interactionist theory of the 'plural eater' (Corbeau & Poulain 2002) provided the intellectual framework for this work⁸. Seeking relationships between different vertices refined the research questions. The Nutrition team and CIRAD supported the process of formulating questions before the production of data by holding several meetings and interviews with the subsidiary's actors who wanted to conduct the study.

Data collection

- 23 The second phase of the study was the collection of data by the local expert, based on two aspects: the depiction of the food context and the understanding of practices and representations (Poulain 2002). The food context of the population concerned was to be assessed from several inputs: the geographic and demographic contexts, consumption and supply data, the distribution system, advertising and the media, etc.
- 24 Data were also collected through observation, a review of the literature and interviews with stakeholders. This first exploratory exercise aimed to adapt internally the generated knowledge (mainly from marketing and consumer sciences, which are the dominant disciplines within the company) and to examine it from the angle of a social issue (correlated with the population potentially targeted). Inputs for food practices and representations were gathered through participant observation and in-depth semi-structured interviews. These focused on different points: supply and purchasing, identification of food categories and factors affecting choices; food processing practices, home-made and agro-industrial products; consumption practices, which could be interpreted through the organisation of daily food intakes (Poulain 2006), dynamics within human groups around meals and social sharing norms (Fischler 2011).
- 25 Eaters' representations were also captured in this discourse, identifying both material and intangible constraints (norms, beliefs), modelling their preferences. Then the expert translated the data obtained in terms of 'reasons to eat': social (differentiation, transmission and relations); economic (aspirations and concerns); cultural (taboos, classifications and traditions) and nutritional (perception of the relationship between diet and health). Interviews were thus conducted with a sample selected to diversify as much as possible the determining factors in food practices and representations (young, old, rich, poor, etc.). The researcher recruited two additional colleagues (with Masters and PhD degrees) to work with her for data collection and analysis. Interviews were performed until the point of semantic saturation was reached, with generally 40-50 interviews per town. They were conducted face to face by experienced sociologists and anthropologists, who were knowledgeable about both the company and local language, at the homes of interviewees upon appointment, and lasted one to two hours. The interviews were recorded in full, then transcribed and translated into French or English. A few focus groups were held on specific issues. The work of the local expert and her supporting team was concluded by an oral presentation of the results and a written report was presented to all stakeholders involved, notably all actors within the subsidiary.

The presentation of the socio-anthropological study and its effects

- 26 We paid particular attention to one of these restitution seminars, held in Ivory Coast, where the local firm was starting a reflection on infant food regimes. The day before the seminar, employees were given time to get familiar with the subject: a meeting with several mothers was held, where they described how they fed their infants; visits to a paediatric ward and various commercial outlets (supermarket, grocery store, market). This therefore allowed employees who had not participated in the development of *FoodStyles* to get a brief experience of the local context.
- 27 Some thirty people gathered during two days; half of them were staff members, and the other half were academics and from the medical profession. After each participant had introduced himself or herself and the day's objectives were outlined, the detailed results of the research were presented, which lasted almost two hours. Very quickly, representations moved away from the initially dominant ones among the audience, about mothers who did not comply with international nutritional standards and who would be 'out of sync' with what the medical profession considers appropriate. On the contrary, a more complex representation emerged with the concept of 'standard practice', (*norme pratique*) as proposed by the Ivorian social anthropologist who led the study, which reported the rationale of women in charge of children's food who have to arbitrate repeatedly between their status as nursing mothers, elder daughters used to prescribing food practices, women and wives taking care of their own bodies, contributing to the household budget with time required for economic activities, and people's sensitivity to external messages, from the media and the medical profession,

etc. Several Ivorian managers of the firm spoke out and expressed their recognition of these standard practices, and were visibly pleased to see the reconciliation of their own practices and representations through the researcher's discourse.

28 The contributions and enrichment offered by these restitutions were expressed at both personal and professional levels. A firm employee said at the end of the seminar: *"This has struck a chord in me (...) We return to a more global level, almost to an irrational level, there is evidence of a cultural influence, suddenly it opens a field of enormous possibilities."* For his part, another participant noted *"his shock"* when faced with the wealth of information and the fact that it has produced a *"reset to (his) mindset"* in his *"European"* vision of things. Equally, others also found in the results presented more relevant arguments for talking to the medical profession and other partners in the field of infant feeding. From the ranks of the company staff emerged a shared sense of understanding mothers, opening up many opportunities for thinking about their role in the company's approach to product innovation as well as nutritional education programmes.

29 The second day of the restitution seminar included parallel workshops on the use of data from an innovation perspective and its value for education and awareness programmes. These workshops were designed to cut off hierarchical relationships and mix people while allowing them to meet others with different roles in the company, which is not easy in the everyday professional context.

30 Finally, a plenary reflection session allowed participants to reflect on thinking innovative co-conceptions for future products and the place of the multinational firm in the food dynamics of African societies. Knowledge generated by sociological studies can be a source of inspiration for services developed around products or educational programs that could strengthen the construction of an *"alliance"* with mothers. As one of the employees stressed: *« We try to a maximum to capture cultural contexts so that we can retransmit in our messages and communications, even in the campaigns designed for mothers... ».*

31 The seminar closed on a round table whereby all participants shared their impressions and take-home messages. Feedback was very positive, reflecting the seminar's atmosphere of openness and exchanges. The unifying nature of these workshops is obvious, since they bring together both external partners and, internally, different professions and disciplines. A member of the Nutrition team observed:

32 *"Also the fact that we have these people in the workshops, it unites everyone, and eventually everyone feels like taking part to the company's next innovation. This is very interesting in terms of motivation to ensure the product advances. If a product idea comes from one person, for example from marketing, then arrives through the general director who ensures that everyone works for this idea, it is imposed on people, the motivation and desire to work hard is completely different if everyone feels they are at the origin of the idea."*

From knowledge to commercial product: a transformation unfulfilled

33 The production and mobilisation of knowledge to support a subsidiary firm in defining innovative products followed a well-regulated methodology. Despite the enthusiasm displayed by participants, fieldwork conducted by the company gave rise to real problems. Dissonant temporalities between researchers and the industry, as well as boundaries set by the company on the developed methodology, were two central elements for understanding the friction likely to compromise the successful outcome of the collaboration.

Dissonant temporalities between knowledge production and industrial routines

34 One of the elements repeatedly mentioned by the partners, from both industry and the social sciences, was the difficulty to ensure that each partners' time frame corresponded with the those of the others. First of all, the time taken for the production of socio-anthropological knowledge within the framework of *FoodStyles* was problematic for the employees of the company and its subsidiaries. Indeed, while the production of knowledge by researchers

required time for collection, processing, sifting and analysis, expectations for data and results required faster dynamics. Thus the project coordinator pointed to the difficulty of integrating emerging reflexions into the dynamic of the process:

In order to innovate with real scientific contribution, we are faced with constraints on timing and a state of mind that does not include issues of time, let alone uncertainty... From the moment research is initiated, if we realise that we are not heading in quite the right direction and we may have to start again, it is no longer possible, since the launching date has already been decided. From the moment the decision is taken to undertake a project, the launching date is fixed, which does not provide the necessary space to create science.

35 Therefore the risk of financing such work, with no guarantee of what will emerge, is in head-on confrontation with the temporal deadlines of 'business', based on permanent responsiveness and reorientation, and this is even more so in a context of economic crisis, where the justness of innovations counts more than ever:

What is seen in declining business and sales contexts is that you conduct, in quotes, tactics or readjustments every two-six months, (...). Despite all that, the approach we propose is in the medium-long term. So that it is at once beneficial and very complicated to offer to businesses that are struggling, because they tell you, 'wait...when will we get the result?'

36 But once knowledge has been produced, and in distinct contrast with the time spent on this exercise, the short time devoted to its development or restitution to actors in the subsidiary during restitution seminars was problematic, as acknowledged by a manager in the Nutrition team: *"The workshops were scheduled to last two and a half days. In fact, we only had one that lasted this long, then we were given only two days for the others. Well two days, it's very intense, we keep people here from 8am to 7pm, either listening or reflecting together, and it requires a lot of exercise to make them cogitate, it is very tiring."*

37 For their part, social science researchers underlined the difficulty they felt with the company's time pressure. An African sociologist expressed his feeling on his *FoodStyles* experience: *"It was good, it's true that I was happy but also found that they were a little too eager to achieve the result of the innovation because, as we said at certain moments, it is important that people don't go too fast...that they take the trouble to consider the feasibility of what can be proposed."*

38 One effect of this lack of harmony/ synchronisation over timing was also expressed in the way data was processed, translated into knowledge, causing a feeling of disconnection for researchers involved in the project. Social-anthropologists, attached to textual production and literary narrative, stood up against the rather more schematic thinking of company employees, seeking to save time to get to the simplest message. One CIRAD researcher noted:

39 There was this concern to have the data on a base, to show the results, to prove that a study had been conducted. But not in the form of text because they do not read. If you look at their communication medium, it is PowerPoint, it is Post-it, it is never text. It is a very particular approach, almost a language, a discourse.(...) They go fast, so to be even faster, you have a study that has been done and they take all the information, trying to classify it into a kind of variable, you see, a kind of table with two entries, but no text.

40 Consequently, there is a risk that researchers cannot conduct their work in an appropriate fashion and within the required timeframe. For the company, the risk is also that the translation of the proposed methodology in terms of innovation, justness and marketing success is not achieved. Moreover, as we shall now see, the perimeter of the methodological system, beyond its temporal characteristics, was eventually questioned regarding its capacity to fit into concrete translations of innovation.

The "just" product: will it be eventually adopted?

41 We have so far emphasised the intangible dimension of the process, with the question of the production and discussion of knowledge; but has this knowledge borne fruit in commercial terms? After being given the material to design "just" products, was the company able to produce them? And eventually, did they sell? It is difficult to answer these questions. Firstly, because our study was conducted mainly during the course of the restitutions and so it is too recent to know what happened subsequently. Moreover, it is difficult to identify what the

FoodStyles studies specifically changed in the iterative and complex processes of innovation. Finally, and most importantly, because the internal project team did not follow in every detail what has happened in the company's subsidiaries since the first studies were launched. What is clear is that no innovation launched on the market is currently presented as the outcome of these *FoodStyles* studies. In this final section, we will examine from a critical stance the system developed, its limits and lessons learned from this situation.

Between dissemination and support: arbitration is necessary

42 The major element to consider in the lack of an industrial translation of the process is precisely the fact that the success of the project proposed by the Nutrition team seemed finally to reside more in convincing a large number of subsidiary firms to experiment with the approach, than in the concretisation and profitability of innovations produced by this approach.

43 To understand these trends, we need to bear in mind the organisational context of this approach which constituted, as we have seen, a break with the 'traditional' way the company approached innovation. Proposing a new way to innovate in the company was therefore significant; innovation is very clearly the name of the game in a company where the constant development of new products is the rule. As underlined by a company employee, "*innovation is the Holy Grail*", and in order to impose an alternative approach, initially at least, it was necessary to show that it was appropriate and that it worked, to popularise the proposed approach among the plethora of autonomous subsidiaries. Besides, this was a difficult economic environment in which to convince subsidiaries to devote time and money to comprehensive approaches that would better capture the characteristics of their environment and, above all, to better fulfil their mission of 'health through food'. This is why the team leader insisted: "*At the start, when I talked about innovation and local contexts, I was seen as a dreamer ...*"

44 Faced with multiple challenges, we can better understand the energy devoted by the Nutrition team to first build a solid methodology, to test it in various contexts, to promote it throughout the world, and try to interest⁹ as many subsidiaries as possible. In other words, to disseminate the methodology as broadly as possible, rather than concentrate on a few cases by supporting subsidiaries in the design and marketing of innovations. One of the project leaders mentioned the incessant work for in-house participation, reinforced by staff turnover, thus requiring the regular enrolment of new collaborators.

45 Despite the interest mentioned earlier, once the exercise was finished, the firms tended to return to their routine approaches to innovation. No follow-up or specific support of the proposed methodology was offered after production to make it concrete; classic business functions and the usual divisions of tasks prevailed. It is therefore difficult to demonstrate the efficiency of such methodology, to provide an economic translation of intangible resources generated with the help of researchers in social sciences.

Does knowledge about eaters warrant their consent?

46 It therefore seems that the proposed methodology, while seeking to break with conventions and institutionalised forms of organisation, did not go - or at least could not go - far enough post production in supporting the innovation process. Going deeper into what appeared to us to be one of the 'weaknesses' of the approach, it became apparent, in the critical dimension of the research, that this limit was certainly due to organisational limits¹⁰, and also to a certain vision about what social sciences could bring to the company that was in fact constructed by team members.

47 In this vision, the idea that the participation of multiple differentiated actors, from both within and outside the company, would necessarily make it possible to conceive a product "more just", was central. Emerging from the approach was the feeling that this participation of heterogeneous actors became itself the target in the process, rather than being an instrument to generate innovations¹¹. What appeared to matter most was succeeding in mobilising the actors, having interested them in the methodology and interact with each other, as if this more horizontal participatory process would necessarily result in a more "just" product. But the justness of an innovation resulting from such an approach needs to be discussed, particularly concerning the role given to the social sciences. The fact that the methodological approach

came to a halt at the door of design and marketing provided a vision of the Nutrition team according to which the simply 'just' character of the product, in terms of its pertinence, the fact that it was based on a detailed knowledge of eaters, the place of food in the body and in society, was sufficient to improve its potential for commercial success. It was as if the socio-anthropological knowledge of eaters, translated and incorporated into an object, warranted the consent of eaters to buy it, or as if the arrival on the market of the object would necessarily meet a demand and be seamlessly integrated into consumption habits.

Conclusion

48 Through this research, we have conducted an analysis of a cooperation programme between industry and the social sciences to produce socio-anthropological knowledge about consumer food practices. We have translated this knowledge to the company's subsidiaries in order to promote the development of innovations which are more pertinent, both in nutritional and marketing terms. In other words, through the mediation offered by the work of sociologists and anthropologists, the company brought together consumers and innovation actors, with the hypothesis that this coming together would give rise to innovations which are more just. In the spirit of what is now commonplace, the mobilisation by companies of scientific knowledge produced by third-parties (Boly *et al.* 2014), knowledge produced on societies and social facts by social scientists would thus reinforce the firm's innovation capacity.

49 As we observed the lack of innovation arising directly from this approach, we have highlighted the difficulties inherent in this type of cooperation. First, we have shown the existence of dissonances between social scientists and the industry concerning temporalities in the production of knowledge, and also the procedures designed to reproduce and share this knowledge, which affected the nature of the collaboration. Thus, the sociologists' comprehensive approach, needing time for detailed analysis of processes and preferring narrative formats as restitution modes, struggled to meet the company's requirements. In addition, we have highlighted the fact that the way companies understand *ex-ante* the potential role social sciences can play in defining innovations which are more just, both in terms of fairness and pertinence in particular, is key to understanding these difficulties.

50 The work involved in the production of knowledge in the social sciences, and the knowledge itself, has therefore provided an enlightening opening for following both debates about innovation within the company and tensions around the researchers' work in this type of collaboration. The involvement of researchers therefore gave us the opportunity to report on their reflexive attitude regarding their work issues, with regards to the hostility common in the academic world toward this type of collaboration (Meynaud 2010). The subject of the involvement of social scientists, their ethics and the critical distance they maintain *vis-à-vis* the company, ultimately lead us beyond the strict issue of innovation, opening the field for reflection on the articulation of their scientific ethics with that of the company, particularly about initiatives concerning social responsibility. This research, because of its methodological anchoring at the interface between research-action and critical research, brings us back to the issue of the incorporation of critique by contemporary capitalism, as described by Boltanski & Chiapello (1999).

51 First of all, and probably simplistically, the question of change in the corpus of justification can be put forward, underlining the resources mobilised by a company - such as communication and partnerships - to build a public image rooted in a regime of social justice. But then, and probably more fruitful in terms of perspectives for innovation studies, new compromises were created within the company to develop a new justice, between industrial standardisation and adaptation to the singularities of local contexts or specific populations to be taken into consideration. The development of BoP¹² markets (Cholez *et al.* 2010), cases like the one studied, founded on a quest for 'justness' compatible with economic and social issues, and more generally the obstacles to reconcile a militant project and economic success (Demazière *et al.* 2013), are indeed open windows on the opportunities and constraints facing companies in these new social settings. If the social sciences can play a central role around these dynamics (Vidal 2010), we have shown in this paper that a plurality of postures can be envisaged to

address this, while both support and critique can be complementary for social sciences within the framework of industry partnerships.

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Notes

- 1 However, it is worth noting the contribution in this field of a special edition of the journal *Tracés*: “A quoi servent les sciences humaines?” (De Froment 2010).
- 2 The Cirad team was composed by N. Bricas, initiator of this cooperation who followed the company in its reflection concerning the integration of the social sciences for innovation, assisted by: one engineer, two PhD students doing their research on the “*FoodStyles*” program (including L. Arcieniegas), one post-doctoral student (S.A. Sauvegrain) recruited to analyze the innovation process and F. Goulet, researcher specialized in the sociology of innovation.
- 3 This project has been supported by Agropolis Fondation through the “investissement d’avenir programme” ANR-10-LABX-0001-01.
- 4 For this research, a first phase of exploratory interviews was performed by S-A. Sauvegrain and F. Goulet, followed by a second phase of in-depth interviews with pre-established questions with several actors of the company in two French towns as well as in Abidjan, in collaboration with a sociologist who contributes to the *FoodStyles* studies. The verbatim responses appearing in this paper were extracted from recorded interviews made between April 2013 and December 2013 and transcribed in full by S-A. Sauvegrain.
- 5 About the enrolment of food companies and their activities in the field of public health and their role in the definition and dissemination of dietary norms, see Nestle (2013), Scrinis (2013) and the critical note produced by Déplaudé (2014) on both works.
- 6 The term “consumer” is usually used in surveys made by marketing sciences. We choose to use the wider term “eater” which enables us to consider the individual within his/ her cultural context.
- 7 The local staff was composed of twenty people from several positions in the advertising and marketing sectors, nutrition and the interface with the health department, agro-resource valorisation, product distribution, direction and management services.
- 8 In the ‘eating triangle’, Corbeau offers an analytical tool that maps out the encounter between the eater and food in a specific situation. This triangle varies over time and space, taking into account the personal history of the eater, rituals associated with consumption, the nature and quantity of the food and the variety of situations in which it is shared and consumed. This

model helps to draw out subsidiary's issues by linking the triangle's three axes according to various combinations, thus becoming a reflection tool for the company.

9 Cf. Callon (1986) in the “*Sociologie de la traduction*”, where he suggests an innovative methodology that 'stands between' actors and their objectives.

10 The Nutrition team has a small staff and cannot produce its own innovations, let alone proceed to changes on its own initiative.

11 See in this vein works in political science highlighting the tendency to make participation an end in itself rather than a means to generate original results, such as Loconto & Fouilleux, 2014.

12 “Bottom of the Pyramid”, cf. C.K. Prahalad (2004) and Stuart L. Hart (2005): the BoP market is highly brand conscious.

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Authors

Frédéric Goulet

sociologie, Cirad, frederic.goulet@cirad.fr

Sophie-Anne Sauvegrain

anthropologie, post-doctorante Cirad, sasauvegrain@yahoo.fr

Laura Arciniegas

sociologie, doctorante Cirad, laura.arciniegas@cirad.fr

Nicolas Bricas

socio-économie, Cirad, nicolas.bricas@cirad.fr

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Abstracts

Innovater à plusieurs niveaux. La place de la connaissance dans un dispositif de coopération sciences sociales/ industrie

Cet article analyse un dispositif de coopération sciences sociales - industrie, dont l'objectif est de développer des démarches alternatives de conception d'innovation au sein d'une entreprise agroalimentaire. Nous questionnons les modalités par lesquelles des connaissances socio-anthropologiques sur l'alimentation des consommateurs sont produites dans le cadre de ce partenariat et sont mobilisées au sein de l'entreprise pour stimuler la production d'innovations plus justes, en termes de responsabilité et d'adéquation au marché. A partir d'une enquête de terrain à l'interface entre recherche action et analyse critique, nous analysons tout d'abord l'origine et l'enjeu de ce rapprochement avec les sciences sociales et le type de connaissances qu'elles génèrent. Nous montrons ensuite les difficultés émaillant cette coopération, en termes de temporalités dissonantes entre activité de production de connaissances et conception de produits, de frontières du dispositif, et d'importance accordée au sein de ce dernier par l'entreprise aux connaissances socio-anthropologiques.

This article analyses a cooperation program between the social sciences and the industry aiming to develop alternative approaches to design innovation within a food company. We question the ways in which socio-anthropological knowledge about food consumers was

produced within the frame of this partnership, and was mobilized within the company to design more accurate innovations, in terms of responsibility and adequacy to the market. From a field study at the interface between action and critical research, we first analyse the origin and issues of the partnership between the company, the social sciences and the kind of knowledge they generate. We then show the inherent difficulties of this cooperation, in terms of contrasted temporality between knowledge production and product design, methodology boundaries, and the importance granted by the company to socio-anthropological knowledge.

Index terms

Mots-clés : dispositif d'innovation, multinationale agro-alimentaire, socio-anthropologie de l'alimentation, interface recherche/industrie

Keywords : innovation process, multinational agro-food firm, socio-anthropology of food, interface research/industry