

Go on, taste, there will always be something left over

What is the role of taste – taken here to mean the taste of products and the taste of consumers for certain products – in the construction of agri-food markets? Many theories and experiments on taste seem to have considered all possible answers to this question. Without going into a lengthy interpretation of this literature and these experiments, we simply wish to note that they all show the constructed nature of taste, both on a collective level in the long term, through cultural practices and family history, and on an individual level in the short term, through daily consumption and contact with new products which regularly appear on the market. Surprisingly, the fact that taste engages the consumer's body in a physical relationship with the product is a point that is seldom addressed. Two exceptions are, however, worth noting. The first is the habitus theory developed by Bourdieu (1979), who shows how individuals' social characteristics end up marking them in their bodies. In his opinion taste is a patent example. The second is the physiological approach on which taste institutes base their research and experiments. Yet even if the theory of the habitus and its reproduction helps to explain the stabilization of collective tendencies in the long term¹, it is hardly useful for analysing the renewal of markets and tastes. On the contrary, for although physiology partly explains the acquisition and evolution of individual preferences, it fails to account for the formation of a demand that is identifiable as such. In other words, the relationship between engagement of the consumer's body in the appreciation of products and the collective dynamics of markets still needs to be elucidated.

It is on this problem or, more precisely, on the way in which industry approaches it, that we focus in this paper. Our research concentrated on a specific, limited device: the tasting sessions of a firm's in-house tasting panels². Tasting sessions are one of the main operations that industrial firms carry out either themselves or through partners to adjust their products to consumers' demands. They naturally play a crucial role in new product creation, for the engineer-formulators' work depends on them. They may also be decisive in refining recipes: consumer tests help to specify the effect of a particular component on the palate. But these sessions are not aimed exclusively at devising a formula and having it validated by an end user; they punctuate the process of production and marketing of a product, throughout its life cycle.

¹ Many sociological studies on consumption refer to this theory to back up their research on consumers' buying and eating habits (ref.).

² Such sensorial analysis devices are not peculiar to the firm studied here. They are common tools in the agri-food business.

Our observations in a fruit juice packaging firm show that all tasting sessions, even informal ones, provide a precise frame for the relationship that the firm wants to establish between products and tasters. Tasting can be referred to as a trial that follows a clearly determined protocol, at the end of which the protagonists – i.e. products and tasters – are requalified. It is this trial that we shall now analyse in detail.

Our focus is on a series of pure orange juice tasting sessions that we observed in firm C and in the central laboratory of the group with which it is affiliated. The three sessions in the series took place at one-week intervals. The first session, called the generation of descriptors (i.e. of words) was attended by one panel formed within the firm and another panel from the central laboratory. Each panel had to taste the same six products and to propose pure orange juice descriptors in natural language. At the end of the session the descriptors generated by the two panels were grouped together on the same list. The second session, called the selection of descriptors, was again attended by the two panels. Each panel again tasted the same six products and selected the most relevant descriptors on a single list. The hostesses of the two panels drew up a common list of descriptors selected by each panel. During the third session, called the global consensus session, the two panels got together to discuss the descriptors selected in the previous session. A final combined list of descriptors was then compiled. This list was meant to be as exhaustive as possible, although each item had to be validated by both panels.

The ultimate aim was to be able to give a score to any pure orange juice in terms of each of the descriptors in the list. These scores are used during routine tasting sessions organized by the firm to establish aromatic profiles of the different juices. The "product-profiles" thus obtained are intended to be a strategic tool for monitoring the market and the respective and comparative position of the firm's products. Although very common in the agri-food industry, this type of tasting is still in an experimental stage in firm C, where it was introduced with the renewal of the product range. Although convinced of the scientific (sic) nature of this type of tasting and its usefulness for the firm, our interlocutor pointed out to us that the convergence between descriptors generated by the firm and those proposed by the laboratory was not to be taken for granted. In other words, the comparability that the series of tasting sessions established between products depended directly on the comparability it was able to create between the sensorial evaluations of the two panels and, before that, the participants of each panel. Another difficulty also needs to be pointed out. According to a large number of players that we met, the taste of pure orange juice depends on one main criterion: the origin of the fruit. Pure juice from Florida is known for its sweetness, while the taste of Spanish juice is considered to be harsher. Apart from this criterion, the differences of taste between pure orange juices are not necessarily obvious. Thus, the awareness of the perceptions which make it possible to distinguish between products is not something to be taken for granted. The interesting aspect of the tasting sessions we attended was that for the first time the firm was deploying the entire process for pure orange juice. This enabled us to make a detailed study of the mechanisms underlying the joint description of the products and the tasters' perceptions.

We are going to show that:

(i) the type of session we observed is designed to make tasters perceive an individual physical relationship with the product. The perception of this relationship requires them to distance themselves from both technical evaluation of the product and hedonistic opinion. We describe the

way in which this relationship is formed, from the panel members' training to the tasting protocol, through the recommendations given by the hosts throughout the sessions;

(ii) this individual physical relationship between tasters and products is allowed and supported by collective discussion or, more exactly, by the collective testing of perceptions. This collective testing is organized along the lines of a political model: consultation with each panel member, encouragement for every one to express and defend their perceptions, even if no one else experiences the same thing, open confrontation between different forms of authority (know-how of more experienced members, technical skills of formulators, individual experiences, personal ability to verbalize, objectified specificity of certain aromas and flavours, etc.). We shall describe the dynamics of this consultation-confrontation;

(iii) the entire process progressively establishes an intercorporality between tasters, enabling them to put aside their personal overall and immediate judgements on products, at least momentarily. A space for detailed comparison between products is then opened. We shall see that this joint requalification of tasters and products is vital for the firm, enabling it to take part in the continuous and collective process of monitoring and defining the tastes of products and consumers.

1. MAKING AN INDIVIDUAL PHYSICAL RELATIONSHIP BETWEEN PRODUCT AND TASTER PERCEPTIBLE

The generation of descriptors session took place in the conference room at the firm's head-office. Identical glasses with a number at the foot of each glass were placed around the large table. They were half full of a juice and covered with a small sheet of paper. When we arrived the young hostess, in charge of the cider section of the R&D division, was busy filling the last glasses behind the bar at one end of the room and carrying them to the table. There was a total of six at each place, together with a plastic tumbler with water (bottled water and packets of water biscuits covered the middle of the table) and a form. The form consisted of a table with three rows: "aspect", "nose", "mouth" in that order, and six columns, one for each product. The 13 panellists arrived in dribs and drabs. All were women in the 25-50 age-group and occupied various posts in the firm: scientific manager, sales manager's secretary, head of marketing, researcher, etc. The atmosphere was relaxed but a description of the proceedings shows that the tasting was organized and followed a specific protocol.

Once the panel was complete the hostess briefly explained that the juices had to be tasted one by one, starting with glass n°1 and without back-tracking. She added that there was a total of six glasses to taste. For each juice the panellists were required to fill in first the "aspect" section, then the "nose" section and lastly the "mouth" section. Some appeared to know the ropes and immediately started tasting. One of the panellists exclaimed: "Ah, so that means we don't first fill in everything under aspect". The hostess answered: "No, no, you mustn't compare. And say what you think". The R&D manager informed us that "aspect" referred to colour, to texture of the pulp, to transparency, and to the impression of thickness, opacity or murkiness. She added: "You mustn't give a hedonistic opinion, that's not the point, the idea is to describe". The hubbub died down. Everyone was very busy with their glasses. From time to time little comments were heard, usually expressing judgements of the type: this one's bad, this one's got no taste, and so on. When

questioned on this point of protocol, the hostess recalled that talking was not allowed but nevertheless overlooked the occasional little squeal. She was to talk very little during the session, leaving the panellists, engrossed in their task, to get on with it. Everyone progressed at roughly the same pace. When they got to glass n° 5 a number of comments were heard: "Its indescribable", said one of the panellists. "Ah, you think so? I think it's easy" answered another one, laughing softly. "It's yuk!". "This isn't orange juice" added another, "it tastes more like vomit". This was the only real conversation between the participants. After two hours everyone had finished. They all tried with obvious curiosity to guess "who's who". The hostess broke the suspense and revealed the identity of the six juices. As she announced the results the R&D manager showed her contentment: she had good answers. We learned that juice n° 5, which had been the subject of such disagreeable comments was the pure orange juice of firm C. The packaging was the cause of the problem. Everyone had their say: "This is really disastrous. It's going from bad to worse". Apparently nobody was surprised to discover the identity of n° 5, but all were appalled by the extent of the damage. The hostess closed the session by explaining that in the second stage, scheduled for the following week, all the descriptors would be listed by product. She added that she would give everyone little vials of essential orange flavours so that they could all get used to identifying aromas.

As we read through these few impressions jotted down during the session, two things struck us. The first was the way in which the panellists applied themselves throughout the session. Their serious attitude seemed unaffected by the friendly atmosphere, the few words and jokes made here and there, and the total absence of any inclination in the hostess to control them. The second thing that struck us was the lack of explicit rules in the generation of descriptors. There was of course a protocol, which the hostess summarized at the beginning of the session, and we noticed a common pace, suggesting that everyone was totally familiar with the exercise, but at no time did the hostess give indications on how to taste and to put perceptions into words. It was during the different interviews that we subsequently held, and during sessions of collective discussion that took place in the following weeks, that our impressions were progressively clarified. They can be explained by the framing of the operation which defines the theory of taste and the ways of tasting at work throughout the process.

Tasting or producing a perceptive body

Our interlocutors told us about a number of elements that frame the generation of descriptors. The first element is voluntary participation on which the panels are based. The R&D division responsible for the operation launches a sort of call for candidates, without any *a priori* restriction as to required skills. Any employee of the firm who wishes to participate in the operation can volunteer. That is how people from the R&D division, the marketing division and the personnel service get to be sitting together at the same table.

As noted above, these tasting sessions, unlike those usually carried out in R&D, are intended to gather not the opinions of experts but those of informed consumers. The consumers concerned therefore need to be willing subjects who want to taste and to talk about their impressions. The choice of products tested reinforces this principle: they are not formulae in the process of being determined, but products already on the market, which the hostess buys at the supermarket. The requirement or, rather, the very strong recommendation that panellists express themselves in their own words, is also related to this situation of consumption. They are asked not to give the

formula of a product, but to express as accurately as possible the impressions that the product has on them.

The second element in the framing of the operation is training in basic tastes (sweet, salty, sour and bitter) and essential flavours of orange juice. This training is concluded with an exam, after which the panellists are selected. The explanations we were given show that the training and selection aim less at turning tasters into instruments for recognizing the composition of a product, than at making them able to recognize and measure their own sensorial capacities:

Physico-chemical analysis enables one to draw conclusions on the quality and legality of a product, but that does not replace sensorial analysis. Physico-chemical analysis enables one to analyse molecules, but there is no way of telling what those molecules will do on the palate. One molecule may be stronger than another. We can assume things, but we can't really know without tasting. For example, the balance between sweet, bitter and sour tastes changes a lot, depending on the person. There are a lot of people who can't identify bitterness, for example, I don't really know. I taste it, but late. I need a concentration of x whereas [the hostess] needs only a third of that. At the end of the selection I know that to taste sweetness I need a rate x, sourness a rate y (a panellist, in charge of ageing tests in the R&D division).

What our interlocutor maintains is that our perceptions are the expression of the capacity that our visual, olfactory and gustatory organs have to be marked by a product. Thus emerges a theory of taste as the trace of an individual physical relationship between product and taster³. Training plays an important role by making tasters aware of their body as the main mediator of their perceptions and impressions. Yet this body mediator of perceptions is easily forgotten. It regularly needs to be made perceptible as such. That is why, explains the hostess, panellists have to be trained on an on-going basis, once every two or three weeks. Periodic tasting sessions are also aimed at incorporating flavours and aromas in such a way that there is an enhanced awareness of the body marked in this way. Repeated training and tasting sessions teach tasters to dissociate themselves, in a sense, from their body, to make it sensitive to the test of tasting. In other words, they help momentarily forgetting their ever-present but silent body so that an equally present but talkative body can emerge⁴. For us, who had not undergone the training, the exercise was particularly trying: we found it difficult to sense anything at all. And we were not the only ones to suffer; on several occasions we heard new tasters sigh, making no effort to hide their difficulty in performing the operation satisfactorily.

The third element of framing is the constitution of a well-defined and cohesive group of tasters who work in a spirit of cooperation. They do their training in tasting together, they collectively discuss words and tastes, and they belong to the same firm, which makes them constantly aware and informed about products, in a spirit of intimacy that enhances their voluntary participation⁵.

³ A theory underlying research and experiments conducted in taste institutes.

⁴ In daily life the body has that ambiguous way of being both silent and talkative. At certain times such as during illness, pain, fatigue, effort or pleasure, it expresses itself clearly. Yet this does not mean that in certain circumstances the body is more present (or absent) than in others; it is always present (absent), although at certain times it makes itself heard more than at others. On this point see Leder ?

⁵ Besides, numerous informal tastings occur within the firm, making the firm people feel very close to the products they are working on.

That is, moreover, what invalidated our own tasting in the hostess's view. Whereas we naively thought that in this "fishing for words" any idea was good, the hostess simply handed our forms back to us. Somewhat sheepishly we understood that our position outside the group disqualified us, even more surely than the inadequacy of our syntactic and sensorial repertoire.

The fourth element of framing of the operation was the protocol governing the course of the tasting session. It continued the work on the body proposed during the training. Tasting, as the hostess put it, is a monadic sequence. That is to say, the exercise is deprived of the resource of comparison, which leaves the uninitiated taster confused because of the strong temptation to compare colours, for example, in order to better distinguish between oranges, greenish tinges, murkiness, transparency, and so on. Why is this resource that seems so fertile prohibited? There is no definite answer but we do have some suggestions. Tasters probably have to repeat the dual confrontation between a body and a product each time, without being guided by a pre-established grid that could mask impressions of a particular product. They must also retain a certain effect of surprise that would be dampened by going back and forth from one juice to the next. The comparison of two products could lead to hedonism, to preference without descriptors, undetachable from the person. Moreover, the exercise has to resemble domestic tasting where the comparison of two similar foods is rare. In our tasting session each product was examined in order, without any back-tracking, first by the eyes, then by the nose and finally by the mouth.

The order is important because, we learned, the eyes saturate more quickly than the nose, and the nose more quickly than the mouth. Furthermore, although the different organs influence one another, the importance of the mouth is far greater than that of the eyes and nose. In fact, what is aimed for is maximum prominence of the body⁶. The course of the operation forces tasters to concentrate so that they perceive what their eyes, nose and mouth tell them. The presentation of products to test is also part of this logic. The juices are poured into identical glasses, in equal quantities, and are therefore stripped of all their usual distinctive elements such as packing, price, on-pack promotion, etc. In short, everything is done so that in the hand-to-hand between product and taster, the sensory organs are tuned into the juice and the juice has a direct impact on the sensory organs.

Generating descriptors or separating technical appreciation and hedonistic opinion

The doctrine underlying the generation of descriptors is crystal clear. The idea is not to use the body to exhibit the components of a product⁷, but to get it to describe what it experiences in contact with the product⁸. Verbalization in natural language that both the hostess and the panellists emphasized is therefore essential since it goes hand in hand with the production of a sensitive body. As one of our interlocutors pointed out to us concerning an apricot flavour that she took a while to identify:

⁶ Tasting sessions take place in the morning because that is when gustatory capacities are at their peak. It is also recommended not to smoke before tasting, even if the fact of being a smoker is not, as such, a discriminating factor.

⁷ The way a «nose» identifies vetiver, jasmin or lily of the valley in a perfume.

⁸ That is why we qualify the relationship that the tasting session is supposed to establish between product and taster as «physical». Even if the term «physical» refers quite naturally to the body, it is not so much the body as opposed to the mind or intellect but the body in so far as it is able to express itself.

Yes, I couldn't find the word at first. But now I remember what it is. I taste every day for my work. So after a while one's memory is trained. There is like an after-impression, a connection that is formed and reinforced between the brain and the tongue (a panellist, in charge of ageing tests in the R&D division).

The panel works collectively not only on the capacity to make the body sensitive but also on the brain's skill at finding descriptors. The play with words accompanies the play with perceptions. Our experience first showed us that perceptions initially seem to be at a loss for words. Although the contact is constant in the world of food, the vocabulary accompanying it is poor⁹ and the range of spontaneous descriptors narrow. In the first tasting sessions tasters had difficulty finding the exact words and were surprised by those that others came up with. Then, as perceptions were enhanced through being expressed and compared, the words produced collectively ended up flowing abundantly, to such an extent that in the third session we wondered, almost alarmed: "How can they perceive all that?", "What nose can perceive in that juice three distinct aromas: 'grilled', 'roasted' and 'burned' (that were, moreover, defined as 'cooked')?" In fact the vocabulary developed here must make it possible to open up or to imagine perceptions that have not yet been experienced. We could say that the series of descriptors produced at the end of these three stages must make it possible to outline new spaces. In other words, it enables tasters to imagine perceptions they have not yet perceived, or even to taste and smell juice that does not exist.

Of course, the training they receive and regular tasting sessions heighten this ability of tasters to verbalize their perceptions. Categories such as colour, texture or fruity flavours, for example, are proposed, in relation to which each taster is asked to experience something. In a sense they give points of reference which indicate the range of descriptors that can be used to qualify perceptions resulting from contact with the product. While inexperienced tasters progressively have to build up their vocabulary, expertise does not either have the adequate pre-defined vocabulary. There is a risk that regular training and tasting sessions make the taster's approach too technical. Thus, the forms completed by the R&D manager and our former interlocutor, both used to tasting for different reasons, were not only filled in in far greater detail than those of the other tasters, but also used a great deal of technical vocabulary and were fairly similar¹⁰. Our interlocutor, proud of her expertise, made no effort to hide this during the session. She asked the R&D manager: "The white stuff between the pulp and the skin, what's it called again?"¹¹. One of the panellists mockingly retorted: "You found that?!", meaning that expertise should not be confused with the experience of a trained consumer. We understand the hostesses' concern throughout the different sessions, that each person express her perceptions in her own words. The aim is the most accurate expression possible of what each person experiences, and not an exact characterization of the product. The panellists realized this and during the second session, called the selection of descriptors, one of them suggested that they eliminate the different fruit flavours "because these are flavours that a non-specialist can't identify".

⁹ As historians of food show. Cf. Rowly, Flandrin ...

¹⁰ Genevieve Teil clearly showed this ability that experts have to differentiate aromas in more and more detail as their training advanced. See (Teil,1998).

¹¹ They are talking about the white of the orange and despite the sarcasm, the word does the rounds, as if the participants were gargling with it.

At other times the tasters referred to sensory experiences outside the framework of the current tasting session, to support their choice of vocabulary for their perceptions. This enabled them to adjust their perceptions and expression of them more and more finely. With regard to the "marmalade" flavour they smelled, for example, numerous and varied products and components, including warm potatoes, orange preserve, orange rind and duck in orange sauce were suggested by the panellists, forcing them to perform a sort of microsurgery on their perceptions. A joint analysis on perceptions and words was thus undertaken by the tasters, which enabled them not only to avoid a technical assessment of the product but also another pitfall: hedonistic opinion.

"You mustn't give hedonistic opinions." This sentence, that we heard more than once during the different sessions, is one of the basic principles of the tasting sessions. In fact, what is refused is all qualification that has not been decomposed and then recomposed by the body. A hedonistic opinion can therefore be used, provided it is dissected:

We're trying to make descriptions. If you don't like something you've got to find exactly what it is that causes you not to like it. If you find that it's bitter, you may not like it but on the other hand you may; it can be negative or positive (a panellist).

For a juice I can have an overall judgement, for example I may find it nauseating. But then I break it down to describe my judgement (a panellist).

This process of decomposition is by no means self-evident; it has to be done with a sensitive body whose boundaries are not stabilized once and for all. It depends on the way the body feels and expresses what it feels. The body has to find the right way of expressing itself.

Of course some basic precautions are taken to frame the taster's sensitive body or rather, to frame the face-to-face between the taster's sensory organs and the juice. The first precaution is the way in which the juice is presented: in identical glasses so that the taster's judgement is free of any preferences for a particular brand or a specific bottle, for example. Another precaution is the instruction to tasters to inform the hostess if they have a cold so that the alteration in their senses can be taken into account. We were surprised to discover, however, that all instructions were not followed strictly. For example, some panellists ignored the rule prohibiting coffee or cigarettes before a tasting session. Our surprise was met by chuckles which suggested that, from their point of view, it was of little importance. For want of an explanation, we tentatively suggest that the aim is of course a body which is available for tasting, but tasting which takes place in conditions that are far closer to ordinary consumption than they might seem.

Analytical work on perceptions must therefore be performed with a sensitive body whose articulations with the outside environment are different from those of an ordinary body, but nevertheless remain variable.

To summarize, we can say that the 'generation of descriptors' session and, more generally, the tasting which took place throughout the process, was intended to make tasters aware of an individual physical relationship with the product. All the elements of doctrine that we have identified, as well as the actual organization of the operation, from training through tasting protocol, are congruent with this objective. Voluntary participation, the main criterion in selecting panellists, aims at guaranteeing the authenticity of the perceptions expressed. It is

relayed on the ground by the sentence constantly repeated by the hostesses: "Remember, the main thing is to say what you can, in your own words". We thus see the emergence of a theory of taste as the expression of the body in contact with the product. Taste is therefore neither the sensorial equivalent of the chemical composition of the product, nor a hedonistic opinion on the product. It is what the body says, marked by flavours and aromas¹². We noted the importance of regular training and tasting sessions in the production and maintenance of this sensitive body. We also emphasized that the boundaries of this body, as well as its way of sensing, vary not only from one individual to the next, but even for a single individual, depending on the time, circumstances, products tested, etc. Hence, the interest of the operation for the firm, since it is a way of collecting a wide range of perceptions. The management of this variety is, however, also a complicated task.

2. COLLECTIVE TESTING OF PERCEPTIONS

A week after the generation of descriptors session, in the same place, with the same protagonists (and only a few slight differences, such as the presence of an employee from the marketing division), the so-called 'selection of descriptors' session was held. The arrangements were identical, except that the participants had the list of descriptors generated in the previous session by the firm's panel and the central laboratory's panel. The hostess and the R&D ageing tests manager explained that for each product, the aim is to review all the descriptors on the form in terms of visual aspect, smell and taste, in that order, and to mark those considered relevant for the product tasted. Like the previous time, the tasting took place in silence. After about an hour everyone had more or less finished. The hostess wrote the list of descriptors on the board. She then went round the table ticking off the descriptors selected by each participant for each product. This consultation seemed extremely tedious. Each of the ten panellists present indicated, for each of the six products, the descriptors she had chosen out of 112 on the list¹³. This took the best part of an hour. But gradually the magic of statistics settled in. Some descriptors were hardly mentioned or not at all, while others were very popular. The contrast was particularly striking between descriptors concerning aspect and smell, on the one hand, and those relating to taste, on the other. Whereas in the first two categories the participants recognized numerous flavours, in the third the selection was more drastic. Is this a sign of the quicker saturation in the mouth that we were told about? It is probably part of the reason. However, during the synthesis we realized that selection depends strongly on the way of perceiving. This was a point that came up repeatedly during the session. At the end of the tasting session a short discussion was initiated by the hostess. We noted that it remained completely open. Contradictory opinions were expressed without the hostess taking a stand. As a result, very few supposedly redundant descriptors were grouped together and hardly any were eliminated. It is the actual dynamics of this selection-consultation-comparison that we shall now examine.

Selecting descriptors or creating intercorporeality

¹² It is, to use Merleau-Ponty's fine expression, "that earthly formula of their presence that things arouse in me" (our translation from *L'Œil et l'esprit*).

¹³ See the list at the end of this paper. The high number of descriptors generated may seem surprising. It is a result of the process which aims at describing in the minutest possible detail all the impressions people have in contact with products. Genevieve Teil, who studied a similar operation for cheeses, showed that «real» consumers, when asked for their opinions, together generated almost 600 descriptors. See Teil, ?

The generation of descriptors session took place in silence. This silence needs to be reset in the entire process. Assuming, as we did in the preceding section, that each person has her/his own capacities, in order to be marked by a product, the aim is to prompt the expression of these capacities, in order to obtain the widest possible range of impressions. It is therefore absolutely crucial for the initial generation of descriptors to engage everyone in an individual face-to-face with the product. In this respect, the hostess told us afterwards about her concern not to trigger off this hand-to-hand between juice and tasters while the participants were gathered together around the table:

The participants mustn't talk. Tasting always takes place in silence. It's each person for himself. People concentrate (...) I was wondering how we'd manage in this room. [At the central laboratory] they have a tasting room with booths.

This rule of "each one for himself" also prevailed during the tasting that preceded the selection of descriptors in the second session. It is consistent with the logic underlying the entire process, in terms of which the door is left open to all impressions, no matter how singular they may be, even during collective discussions.

The balance between the individual and the collective was inscribed in the course of the tasting-selection at the heart of this second session. The descriptors proposed to tasters were those that the panels from the firm and the central laboratory had generated in the previous session. According to the hostess, whose work was coordinated with that of the central laboratory, only a few items, considered redundant, were eliminated and/or grouped together¹⁴. The list thus compiled reproduced almost exactly the expression of individual impressions of all the panellists. A dual principle can be seen in this procedure: first, throughout the process the irreducibly individual nature of the relationship that the tasting establishes between products and tasters is asserted; secondly, for that very reason, a community of alter egos is founded, whose members recognize in everyone the capacity to perceive in their own way. When all the panellists were asked to take into account all the descriptors, they were in fact being asked to take a stand in relation to others who, like themselves, had singular perceptions. The surprise expressed by some when the list of descriptors was read and the suspicion that others visibly felt when they heard the words chosen by their peers, attest to the effect of discovery of the other who, like oneself, has perceptions that are their own:

"Grey, someone found that?" a panellist asked quickly.

"Terrific!" exclaimed another panellist, a little sarcastically, when she heard someone say that they had found a mango flavour in one of the juices.

Thus a collective is created, which is literally based on its members' intercorporality. This intercorporality is constituted according to two different but not mutually exclusive mechanisms. The first is a mechanism of self-revelation. Faced with certain words proposed by her co-panellists, a taster can be led to recognize the exact expression of a perception that she had

¹⁴ It was essentially on the basis of the know-how of the central laboratory hostess, who was used to these panels, that this pre-selection had been made.

experienced only vaguely until then. A recommendation by the central laboratory hostess during the third session clearly illustrates this phenomenon:

The important thing is not to be scared of talking. You mustn't hesitate to say that you've found a descriptor, even if you're the only one. That's very important. With alcohols, for example, I remember that there were important words, but only for one person. She mentioned them and in the end everyone agreed that these words were appropriate.

The second mechanism through which intercorporality is created between tasters is the testing of one's own impressions. The exercise consists of testing each product in terms of the descriptors. One has to ask oneself, for the product that one is testing, whether one sees, smells and tastes the given flavours. In certain cases this can cause one to change one's own way of perceiving. By seeing, smelling and tasting what others see, smell and taste, each panellist experiences the existence of other perceptions and thus transforms her own¹⁵, as the following extract from the descriptor selection session shows:

[As regards pulp as a descriptor of aspect, comments were on length or fineness, on difficulty in seeing, etc.]

Hostess: In fact, there are two aspects to the pulp. First the presence or absence...

[Indistinct voices claim that it cannot be seen.]

... then fine or not fine.

[The panellists say that they have seen nothing.]

Hostess: It's true that apart from Tropicana, there were no juices with pulp.

The head of children's products in the marketing division: I can't see pulp. On the other hand, I think it's something you can feel in your mouth. You can feel if there is any or not. But the size, come on! So, I think it's strange to put pulp under visual aspect.

The head of ageing tests: But in Tropicana there's pulp and you can see it. But it's true that it can lead to confusion, the descriptor 'pulp' on its own. Because in that case I'd put it everywhere.

The establishment of this intercorporality is also what allows the comparison between individual impressions and, finally, the constitution of the panel as a collective body that gives a good idea of the average taste, i.e. the average physical relationship between the product and the consumers thus represented¹⁶. We shall see in the following section that the establishment of this intercorporality goes hand in hand with a more and more detailed qualification of products. But first we shall analyse the discussion which followed the selection of descriptors and prolonged the balance between individuals and the collective throughout the entire session.

Provoking interindividual and open confrontation

¹⁵ Merleau-Ponty, M., *L'oeil et l'esprit*.

¹⁶ Anne-Marie Mol and John Law identify a similar mechanism in the case of perception, by diabetics, of their sugar level. A body is formed around the patient by a collective consisting of the patient's family, doctors and nurses, and of many artefacts such as the measurement of blood sugar levels at the same time every day. This makes the blood sugar level calculable. See Mol and Law, 1998.

Once the descriptors selected by all the panellists had been ticked off on the table, the hostess suggested starting what she called the synthesis, that is, the grouping together of the descriptors that the participants considered redundant, and the elimination of those that were seldom selected or not at all. Everyone had something to say, in a deaf humdrum. Soon the hostess decided to review the list by asking whether the descriptor under discussion inspired particular comments. This way of getting people to speak enables everyone to express themselves and organizes confrontation. Anyone who has a comment on a descriptor can make it and, provided they stand their ground, their opinion is taken into account. Thus, those who are unable to defend their perceptions and argue them tend either to capitulate or to mumble in a corner or else to add their opinions to better articulated but similar ones:

The hostess: Who found the colour green?

The new arrival from the marketing division, a bit uneasy: Me.

By going through the descriptors of colour that he has selected, it appears that he sees green almost everywhere. The others tease him kindly, telling him that green is a sign that the juice has gone off.

The new arrival from the marketing division: Ok, let's scrap it.

On the other hand, those who are capable of asserting their belief in descriptors that no one else may have mentioned are not contradicted by the hostess. For example, someone insisted loud and clear that they had found mushroom, wood and earth flavours in one of the juices. Faced with her determination, and despite reactions from the other panellists, the hostess retained the descriptors. Similarly, those who are able to argue a case during a discussion are not interrupted by the hostess, who gives very few orders. As a result, a sort of inter-individual and open confrontation is established without any real interference by the hostess.

The two most distinct opinions were those of the head of R&d ageing tests and the head of children's products in the marketing division. The former defended the principle of analytical breakdown of perceptions and was thus one of the rare panellists to add flavours to an already long list of descriptors. She even ended up causing a lot of doubt among the panellists who were visibly surprised by such precision in the analysis, as the following extract shows:

A panellist: It's not easy at first to see whether the product settles or not.

The head of the ageing tests: That's why I added soup. Soup, for me, is a sediment that rises, so that the juice isn't homogenous.

Hostess: You'll be here [next week] to defend your soup?

[gentle sniggering in the assembly]

The head of ageing tests refused to budge and the hostess added "soup" to the list of descriptors. The hushed comments, hinting that the head of ageing tests found really weird descriptors, simply reassured her of the legitimacy of her individual perceptions.

The head of children's products in the marketing division defended an entirely different position. She tried to rationalize her perceptions in terms of the firm's discourse on the market position of its pure fruit juice. For example, with regard to the chemical orange taste that the other participants seemed to find perfectly normal, she exclaimed:

Chemical, ok, I get it. But chemical orange, what's that? For pure juice, that's a bit much!
A panellist: Come on! It's not because it's pure juice that it doesn't have a chemical orange taste!

Here again, the hostess refrained from interfering in the discussion. Numerous comments were made, so that the singularity of perceptions were progressively exposed. Very often the discussion stopped once everyone had expressed their own perceptions and noted those of others. Unless the majority clearly rejected it and/or an opinion was fervently defended by one of the panellists, the hostess gave each descriptor a chance of being on the list. In so doing, she allowed the creation of a space in which intercorporality between members could be amply articulated.

To summarize the main results of this section, we could say that the process of individual tasting-selection and the succeeding process of collective consultation-synthesis enable each person to experience and then to express other people's perceptions in their own way. In fact each participant tests the different descriptors proposed and thereby transforms her own way of perceiving, by enriching it during the same tasting-selection session. This transformation continues during the consultation-synthesis.

We have shown that the principle governing this second phase of the session is that of inter-individual and open confrontation. Let there be no misunderstanding about the sense of this confrontation. It is not a matter of unconditionally affirming the equality of all in the discussion, but of authorizing whoever so wishes to defend her impressions. The hostess's only role, although an essential one, is to allow everyone who so wishes to express their opinion, without deciding in favour of an opponent if both sides maintain their positions, even under pressure from a majority of panellists. We could say that the discussion takes place according to a political model of deliberation which gives any descriptor, no matter how singular it may be, the chance to feature on the list – provided the person proposing it supports it through to the end. If they are to be heard, words must be spoken loudly and not only proposed by a large number of voices. The discussion thus gives the panel the way to constitute, as openly as possible, a space of intercorporality in which each member contributes what they consider to be their share. We shall now see that the progressive emergence of this space also and simultaneously allows a series of differences between products to be deployed.

3. PROMOTING THE PROLIFERATION OF PRODUCTS AND GIVING CONSUMERS A CHOICE

The global consensus session was held in the central laboratory a week after the selection of descriptors session. There were clearly more participants (a total of 21, of which three were men) since the two panels – the firm's and the central laboratory's – were both there. The session was led by a host and a hostess. The hostess invited us to take a set of six glasses set out in a row at the end of the large U-shaped table. The glasses were white plastic goblets, each with a little juice in it and a plastic cover. On the table there were boxes containing vials of aromas – as we were to discover later. The hostess asked everyone to sit down, pointing out that it would be preferable for members of the firm and those of the laboratory to intermingle, in order to enrich the discussion. She explained that the aim was to draw up a common list of descriptors for both panels. The host stood in front of several paper boards; on each of which he had listed the

descriptors by category: visual aspect, smell and taste. Those for which both panels agreed on the relevance were marked in black and those for which there would be a discussion between the two panels were marked in red. The discussion was launched. Unlike the previous sessions, no tasting preceded the discussion. The host noted the products for which the descriptors had been selected. He wrote them on the board, but only opposite those descriptors on which the two panels did not agree. The products were referred to by their number, so that the participants did not know what each glass contained. Each descriptor was discussed. At times the debate was fierce but it was also tiresome, for it was both systematic and, in our view, a matter of nit-picking. Nearly four hours later the hostess, visibly weary, closed the session.

In many respects this session resembled the preceding one, with the tasting of unidentified products, broad consultation, and open and inter-individual confrontation. But the goal, global consensus, made the motivation for the discussion far more explicit. We shall now examine some of the mechanisms at work which served to give substance to the collective of panellists and to outline the space of products and their characteristics that simultaneously emerged.

Giving substance to the collective

What is striking at first is the *mise en scène* of a confrontation that the hosts would like to provoke between the two panels. The presentation of the session, the way the descriptors are listed on the board: everything is organized to cause a duel between the two panels, to test the soundness of the collective. At the same time, other arrangements as well as the dynamics of the session tone down this face-to-face. More exactly, they leave open the possibility for interaction between individuals since the panel to which they belong is not taken into account. An example is the possibility of tasting unidentified products, something which the hosts advise the participants to do. Another example is the recommendation that the two panels mix. This enables each person to renew the test of taste during the discussion and, if necessary, to rectify the distribution between descriptors of the firm and those of the central laboratory. Very soon many opinions are voiced, some of which convey individual experiences that go further than those shared with one or the other panel.

On closer inspection we see that debate between the two panels is primarily intended to give substance to the collective, based on elements which are momentarily and partially constituted. These elements include the competence of the central laboratory formulator, references – i.e. vials of aromas –, someone's professional experience, and so on. But the list is not closed. As certain panellists speak they are asked by the hosts to give their opinions on the item under discussion. The hosts' role here is a little different to the one they had in the preceding session. They carry on putting the panellists to the test and provoking mutual confrontation, but they recall their similar experiences with other panels and other products to guarantee the value of the exercise. In other words, they explicitly assert their role as conductors, to help tune the different opinions in to one another or, more exactly, to record any dissonance there may be.

What remains striking at this stage of the process is the relative instability of the descriptors. For example, the references that the hosts use more systematically than in the preceding session do not necessarily determine what a particular descriptor refers to. On several occasions the panellists pointed out that they did not accurately reflect the product that was supposed to

produce the effects under discussion. At other times aromas were not considered as points on which to base descriptions of perceptions:

[With regard to aromas of fresh orange and orange juice, considered typical, compared to overall aromatic intensity:]

A panellist: What's the difference between fresh orange and orange juice? Fresh orange means juice in the refrigerated section?

Head of R&D division: No, orange juice is juice bought in shops [she means that fresh orange is oranges that one squeezes oneself and orange juice is the juice that one buys in a shop, whether refrigerated or not].

The hostess: Everyone agrees on fresh orange?

[She and the host search in a box of aromas.]

The host: I'm going to send around a reference. For the fresh orange, there's a sample [a glass is passed around] so that everyone recognizes it.

A panellist, computer specialist in the personnel division: Oh dear, I recognize nothing at all.

The central laboratory formulator: You've got to learn to recognize.

A panellist: And how do I describe it afterwards?

The central laboratory formulator: Well, you've got to get it in your nose (...) In any case, if I tell you that its the aroma of octanal that won't help you either (...).

It is important to note that the references used by the organizers are a standard that the panellists refer to individually and mutually, but on no account are they universal and unquestionable technical equivalents of perceptions. In other words, behind the perception of flavours and aromas there are no exact physico-chemical translations. On the contrary, in front of perceptions there is an open space filled with heterogeneous elements as the discussion progresses, in which the panellists collectively dissect and enrich their ways of perceiving and describing. The collective body thus constituted is therefore neither the common denominator nor the sum of individual bodies, but the temporary result of the extension and partial transfer of perceptions, through their collective explanation. The balance maintained by the hosts between the different forms of authority manifested throughout the discussions is intended precisely to help this particular configuration of the collective to emerge. It is an operation which simultaneously aims at opening the space for the qualification of products.

Creating an open space for the requalification of products

Two mechanisms, explicitly used by the organizers, govern the requalification of products. The first consists of systematically stopping at each descriptor and using the slightest comment made by a panellist to get the participants to reconsider the item in question. The discussion on the colour green clearly illustrates this point. This item was proposed by a new member of the firm's marketing division during the second session (the selection of descriptors session). Under pressure from the panel, which considered this descriptor irrelevant, he agreed to remove it from the list. However, during the following session the colour green reappeared. Some panellists from the central laboratory had clearly distinguished it in certain products. The new member of the marketing division, called on by the hosts to express himself, agreed with the sub-group from the other panel and again defended this descriptor. But – and this is the most important point – in the ensuing discussion it was necessary to specify what the colour green signified: not a nuance that

the new member of the firm's marketing division was used to identifying - because, as he explained, he was from the cider department - but glints that everyone agreed could be seen in certain juices. Not only was the colour green thus revived, it was also redefined in the discussion. It was simultaneously the robustness of the collective, progressively constituted during the different sessions, that was tested.

This dual uncertainty, on the descriptor and on the collective that was supposed to express it, was actively maintained. Thus, even descriptors that were no longer supposed to generate debate (those marked in black on the board, as opposed to those marked in red) were commented on, sometimes at the request of the hosts themselves. Furthermore, certain items that had been eliminated because they were not considered sufficiently discriminating by both panels, were again proposed by the organizers during the discussion. They were consequently put back into circulation and new items were added, often in a sub-category, "Others" or "Comments". Although a list was to be drawn up at the end of this third session, for establishing the profiles of the products to be tested throughout the year, the organizers did not exclude the possibility of amending the list, depending on the importance of comments on it. We thus see that the process is carried out in stages.

How is the list of descriptors stabilized? In fact it is once the balance between opinions and mutual recognition of impressions is no longer openly questioned that the discussion is suspended. In other words, there is no outside authority to arbitrate: the discussion is initiated by the hosts and extended by whoever wishes to participate. When nobody has anything more to add, it is assumed to have reached its maximum degree of openness. This does not mean that a univocal definition has been found for the descriptor in question, but that everyone agrees that the arguments put forward are likely to explain what was seen, smelt and tasted when that descriptor was mentioned. The term "global consensus" must therefore be understood not as a collective convention on the meaning to give to each descriptor, but a mutual recognition of each person's own impressions which, because they are made visible and debatable, are likely to transform individual perceptions. The search for global consensus is mixed with this additional process of discussion that the hosts synthesize at the end by combining the different elements mobilized during the debate. This has the effect of stretching out the description of products to the point where the overall and immediate impression they create ends up disappearing from the field of perception.

The second mechanism used by the hosts to requalify products is summarized in the injunction of exhaustiveness repeated throughout the session. The idea is that at this stage panellists have to be able to prolong their perceptions so as to experience the contact they would have with a product other than the one they are busy tasting. We have already indicated that panellists often mention diverse and varied components and products to generate and specify the descriptors that come to mind as they are tasting. These range from fruit and flowers to metal, cardboard, milk, biscuits, marmalade, wood, matches, dust, etc. Apart from the tasting they are in the process of doing, it is also their ordinary sensorial experiences that are mobilized. During this third session the organizers ask the participants several times to prolong their perceptual experiences by imagining orange juices different to those they are busy tasting and/or that they have tasted before. More precisely, they ask them to dissect the descriptors until they can imagine orange juices likely to help them to express the perceptions they are explaining. Note that the idea is not only to place words one after the other, as in a gigantic game of consequences; it is to experiment, with a view

to extending the sentient body. This experimentation, even at this stage of the process where tasters already have a degree of know-how, is not simple. During the review, fruity aromas – lemon, tangerine, grapefruit, apricot, mango, guava, passion-fruit, carrot, green apple – were discussed. When the host spoke of a vegetable broth, one panellist remarked:

A panellist: But is the aim to look for the flavour in the six products we're tasting, or is it to anticipate all possible flavours?

The formulator from the central laboratory: The idea is to anticipate because tomorrow the processes may change, other products may appear on the market. In any case, it's not serious if you don't find anything. Just put 0. 0 is a score that's just as important as 10.

The same panellist: Okay, but if I can't find it in any of the six products, how will I recognize it if it's there?

The formulator, who clearly cannot see what the problem is: When you encounter the flavour you put it down. Otherwise you don't.

This additional extension of the list of descriptors is doubled up by adding items generated by other panels at the research centre, so that the collective is enlarged considerably, as the rest of the above discussion shows:

Formulator from the central laboratory: A reference that we often get is high-temperature baking or peas or green beans.

Laughter and dubious shaking of heads by some.

Hostess: We mention that because there are people who're used to tasting and who find this reference.

The hosts justify this approach by the aim of the operation: to define the profile of any orange juice. It is necessary to sense as wide a variety of qualifiers as possible if one is to think of experiencing them when they are presented in a juice, whether it is a new formula or a new version of an existing product. The idea is to create a predisposition for differentiating products, so as to be sensitive to changes in competitors' products but also to variations in the firm's products. As the central laboratory formulator commented:

In any case, two different juices have different tastes (chuckles in the room and vague comments on the quality of the firm's juice). So one has to be exhaustive.

From this point of view we can say that the list of descriptors constitutes a particular tool for qualifying products, aimed, as the formulator put it, at anticipating possible profiles of pure orange juice. The list of descriptors was therefore enriched even further, with new items forcing the participants, in turn, to readjust the descriptors that they had initially selected.

Thus, we can say that the processes of clarifying descriptors, extending the collective that experiences them and broadening the space of products considered, are concomitant. As a result, in the end the number of different juices or, more exactly, of juices likely to be differentiated, is substantially higher than in the beginning.

CONCLUSION

To summarize our work, we could say that tasting sessions are a framed trial, at the end of which products and tasters are transformed. In the case analysed here, this framing defines a theory of taste as the track of an individual physical relationship between the product and the taster. This capacity that people have to express themselves through their bodies in contact with a product is what makes collective discussion of perceptions possible (according to the political model underlying this discussion, which we have called deliberation). It is therefore not only individually but also collectively that products and tasters are requalified.

Without being able here to analyse in any greater detail the economy underlying the process, we wish simply to point out that taste is irreducibly individual but also fundamentally unstable. It is this dual characteristic that makes its collective discussion both possible and necessary. The consequence is threefold: first, the constitution of a demand; secondly, the transformation of preferences; and lastly, the requalification of products. Paradoxically, by taking the opposing view of each of the hypotheses underlying the neo-classical view of the economy (uniformity of goods, perfect information on products and clearly identified individual preferences), the operation we have described creates a real market where consumers end up with a choice between different products.

What is then the relationship between this experimental quasi-perfect market and the "real" one in which "true" consumers operate? In fact, industry has and/or uses a wide range of tools and procedures to define markets, including tasting sessions. Firms constantly compare the results of surveys and experiments carried out on real and false products and consumers, both in-house and by the numerous marketing consultants with whom they work. The description of this collective action exceeds the scope of this paper. We could say, however, that each experiment – and the tasting sessions described here are an example – is a particular instantiation of the product and the consumer which will subsequently be compared and correlated with other market configurations.

- List of descriptors given to the panellists in the second session -

ASPECT :

		pdt 1	pdt 2	pdt 3	pdt 4	pdt 5	pdt 6
Colour	yellow						
	orange						
	green						
	brown						
	grey						
	whitish/milky						
	bright/luminous						
	dull						
	light						
	dark						
	bubbles on the surface/froth						
	pulp						
	long pulp						
	fine pulp						
	fluid/liquid/watery						
	thick/dense/compact						
	translucent/transparent						
Aspect	murky						
	opaque						
	homogeneous						
	sediment						
	particles in suspension						
Other	white particles on the surface/albedo						
	drops of oil on the surface/iridescence						

SMELL :

		pdt 1	pdt 2	pdt 3	pdt 4	pdt 5	pdt 6
Orange	orange						
	freshly squeezed orange						
	sweet orange						
	juice orange						
	ripe orange						
	overripe/old orange						
	rotten orange						
	orange rind						
	orange albedo						
	bitter orange/marmalade						
	fresh tarpènes						
	oxidized tarpènes						
Citrus fruit	tangerine						
	lemon						
	grapefruit						
Fruit	green apple						
	fruity						
	pineapple						
	mango						
	tropical fruits						
Vegetal	orange blossom						
	floral						
	fresh						
	green						
Milky	milky						
	rancid						
Sweet	gingerbread						
	artificial						
Aggressive	pharmaceutical						
	metallic						
	cooked						
	musty/mouldy						
	dusty/cardboard						
	rotten/sulphur						
	oxidized						
	hot						
Impression	aromatic intensity						
	low intensity						
	aggressive						
	sweet						

Other							

TASTE:

		pdt 1	pdt 2	pdt 3	pdt 4	pdt 5	pdt 6
Flavours	bitter						
	sweet						
	sour						
	salty						
Orange	orange						
	juice orange						
	freshly squeezed orange						
	green/unripe orange						
	ripe orange						
	overripe orange						
	cooked orange						
	orange rind						
	bitter orange/marmelade/peel						
	orange terpène						
	chemical orange						
	lemon						
Fruit	tangerine/clementine						
	grapefruit						
	tropical fruit						
	fruit drink						
Milky	milky						
	rancid						
Vegetal	fruity/violet						
	green						
Aggressive	cardboard/dust						
	mouldy						
	wood/mushroom/earth						
	cooked						
	toasted						
	oxidized						
	hot						
	metal/steel						
	chemical						
	alcohol						
	soap						
	persistent/long						
	short						
	astringent/acrid/rough						
	aromatic intensity						

Impression	bland/light round/balanced						
	unbalanced						
Impression (cont.)	mild						
	aggressive						
	pulp						
	granular						
	thick						
	diluted/watery/liquid						
Other							