Design and Accessibility of Baby-Food Labelling from the Consumers’ Point of View

Summaries of the Belgian, British, Finnish, Spanish, and Swedish National Reports

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Design and Accessibility of Baby-food labelling from the Consumers’ Point of View

Summary of the National Report
- Belgium -

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01. Summary of the Belgian national report

01.1. Corpus and methodology
The Belgian corpus comprised 15 labels of Belgium’s three largest babyfood producers (Nestlé, Nutricia and Milupa), viz. 5 infant formulae, 6 follow-on formulae and 4 cereals.

The examination of the labels was phased. First a text analysis enabled us to scrutinize the labels, and here we have indicated possible accessibility problems. An empirical study (preceded by a pilot study) then tested the accessibility of the labels to consumers on the basis of our findings of the text analysis. In this study 31 interviews were conducted and 208 questionnaires were distributed, of which 194 were returned. The empirical study comprises the consumers’ interpretation of the labels, including what they consider problematic about the labels, their remarks, opinions and suggestions. This consumer study took place in the health centres of ‘Kind & Gezin”, Flanders’ official network of child care centres. Most respondents were women.

Both the label analysis and the consumer study were conducted from a discourse analytical perspective.

01.2. Label production process
We have talked with representatives of the three main producers of babyfood on the Belgian market about the process of designing labels. We have also interviewed a pediatrician.

In addition, this report elaborates on legislation concerning babyfood labelling. Legislation for cereals is less strict than for infant and follow-on formulae. Legislation was the starting point of our research, and it has remained the foundation throughout our study. The label analysis and consumer study try to examine whether legislation has the effects which, to the extent that these can be deduced from reading legislation, are intended. When recommending improvements to the labels, we have always done this in relation to what the existing legislation outlines.

21.3. Labels
The labels have been analysed from a linguistic and a paralinguistic point of view, according to the categories 1) pragmatics, 2) cohesion, 3) lexis and 4) grammar.

• The most salient items on the label are the name of the producer or the brand name, the pictures (baby bears, landscapes) on the front side of the packages and the colours. The attractiveness of the design can be considered one of the most persuasive forces of the label. In many cases, emotional appeal is best achieved through the graphic elements on the package since, apart from some personalisations in the form of the second person singular and the use of diminutives, it is almost absent in the wording. The labels are drawn for adults: soft, idyllic landscapes try to appeal them. Health discourse, as instanced by pictures of healthy, natural ingredients on the packages, is popular.
• Advertising text blocks are often made salient by framing them or by using colour contrast. They are sometimes very space consuming, e.g. those for the special storage boxes on Milupa and Nutricia labels. We have also found text blocks listing ingredients besides the product descriptions. The summing up, which is indicated paralinguistically, suggests an abundance of good qualities in the product. In order to improve the accessibility of obligatory text parts, which is often necessary, product descriptions and advertising text blocks should be reduced, or even eliminated.

• There are differences between milks and cereals. Generally speaking, infant and follow-on formulae look ‘clean’, while cereals look more playful. On cereal labels more space is available for non-obligatory information. There is less text and there are more pictures. They also have more extensive product descriptions than milks.

• In many cases, advertising in wordings can be discovered: in the use of conjunctions (because of, thanks to, in addition to this,...) intended to praise the qualities of the product; in the repetition of the product name instead of the use of the pronoun “it” to refer to the product; in cases of comparison without referent, i.e. the use of comparatives or definite articles in combination with intensifiers (often a superlative) meant to attribute exclusive characteristics to the product (e.g. “the ideal food for your baby”); in the presence of pseudo-scientific language in product descriptions; in the use of evaluative words.

• The successive bits of information are often structured well paralinguistically. Pictures, bullets and other symbols are used for the ordering of information. We can find headings, separate textblocks, prominent colours, etc. The preparation instructions are mostly enumerated chronologically. Despite the often well-structured information, some aspects can be improved. For example: 1) The warnings on milks, enforced by EU-legislation, are often crammed together in one text block. They should be separated and classified under different headings according to content, in order to increase their accessibility. 2) French and Dutch texts should be clearly separated. 3) When there is reference to other text chunks, it is preferable for this to include an explicit indication of where this information can be found.

• There were no major grammatical problems on the Belgian labels. The preparation instructions mainly use short sentences, without passives, conjunctions or subclauses. They draw upon the recipe style, using ellipsis of articles or objects (“wash feeding bottle”, “shake well”,...). We have, however, found some examples of nominalisation. The consumer study tested one of these and found it to be misunderstood. Nominalisations are best replaced by imperatives or infinitives, or by postmodification.

• The preparation instructions use a large number of imperatives and infinitives. It may be better to use imperatives rather than infinitives in long sentences when a lot of information needs to be conveyed. Otherwise the reader needs to wait long before he/she can make sense of a clause because the verb is at the very end.

• The warnings should be formulated as clearly and directly as possible. Infinitives or imperatives are more direct than impersonal constructions.
31.4. Consumers

In this chapter, we have examined each of the various obligatory and non-obligatory text parts found on babyfood labels. The first five of these - place of origin, list of ingredients, nutritional table, storage instructions and preparation instructions - are all obligatory according to European Union legislation. The next two sections examine the feeding guide and sell-by-date. The following seven sections cover the special warnings that EU-legislation requires on babyfood labels, viz. superiority of breast feeding, the suitability-notice, the warning of inappropriate preparation, the specialised personnel advice, the diversified diet notice, the mention of the recommended age and of gluten. The final two sections enlarge upon the name of the product and brand name and on the presence of baby bears on babyfood packages.

Each item was examined under six headings: salience, understanding, read by parent, awareness of the label part, background knowledge and importance to parent:

- the salience paragraphs consist of our comments on the salience of each text part (sometimes complemented by consumers’ comments), whereas under the other headings we have analysed the answers, opinions and remarks of the consumers;

- awareness of the label part refers to the parents’ awareness of the presence of a label part on the package;

- background knowledge refers to the knowledge which parents have about information on the label (or is sometimes missing but should be on the label), but which they have acquired somewhere else.

We have experienced that baby milks are products about which people communicate a lot. This means that a lot of parents have background knowledge concerning babyfood and babyfood preparation. In maternity clinics samples are distributed to young parents (although this is not allowed by law). Doctors, nurses, chemists and child care centres explain to parents how they should prepare powder milks. Family and friends pass on the knowledge they have about babyfood to each other.

Although many parents have background knowledge, producers should always bear in mind that the labels should be intelligible and sufficiently informative to consumers who want to be informed without recourse to expert advice. All our interviewees frequented the child care centre “Kind en Gezin”, so we have no information from parents who need to rely entirely on the label.

Our study shows that parents ‘read what they need’. When they were asked what they remembered generally about the tin/package their answers give evidence of a kind of ‘selective practical reading’: many only remember having read the elements which they really need. These are, in order of importance: feeding scheme; nutritional information/ingredients; preparation instructions, age-recommendation and brand. The warnings and pieces of important advice that are legally obligatory were only rarely remembered by the consumers.
Our empirical findings need to be interpreted in different ways: questionnaire answers may be interpreted quantitatively, open interview answers should rather be interpreted qualitatively, because of the much smaller number of respondents.

**a) Place of origin**

There are no symbols or verbal hints which try to present the products as made in Belgium.

**b) List of ingredients**

The list of ingredients is mostly printed underneath the nutritional table, which is a very logical place. Some parents asked for it to be given more prominence. Some find the print too small and one mother suggested the addition of percentages as a way of giving it the attention it deserves.

Most parents read the list of ingredients and indicate no special accessibility problems. Generally we can say that they show a great deal of interest in the composition of the product. Even expert advice doesn't make the list of ingredients redundant, as many people rely only partly on experts, reading the list of ingredients as a kind of double check.

**c) Nutritional table**

The presentation of the nutritional table is unproblematic. It can be recognised quickly on the labels because it is a table. A majority of the parents say they read the nutritional information. However, the table is consulted less frequently than the list of ingredients and many more parents have difficulties reading it than they do with this latter.

**d) Storage instructions**

The storage instructions on infant and follow-on milks can often be found under the clear heading of ‘storage’ or ‘hygiene advice’. On the cereals the they are hard to find. The milks elaborate on storage, while the cereals just advise storage ‘in cool dry place’.

Most parents reads the instructions and find them easy or very easy to understand. Although most can give a basic explanation of the term hermetisch (vacuum packed), less educated people seem to have significant difficulty in understanding this word.

**e) Preparation instructions**

Almost all parents read the preparation instructions and find them easy or very easy to understand. However, the concepts sterile/sterilising, licht gemineraliseerd water (slightly mineralised water), Solustéril-method and recipiënt are not interpreted correctly by some parents, suggesting that, despite their belief that they understand the labels, they do not always have the exact knowledge necessary for the preparation of the powders. Generally speaking, it would be true to say that most parents know how to prepare the bottles, due, to a large extent, to the extra explanations in clinics etc. But as all our interviewees frequented the
child care centre “Kind en Gezin”, we have no information from parents who need to rely entirely on the label.

There is not a good relationship between text and pictures of the preparation instructions. Due to the fact that pictures are very space-consuming, their number is limited, but as a result they are only a poor substitute for the written instructions and cannot provide full understanding on their own. It is worth considering whether more space should be made available for these pictures. Illiterate people and non-native readers may have to rely on them alone and so all important information should be contained in them. Text and pictures should correlate and should start at the same level, otherwise the implied correspondence between them might be misleading.

The process of sterilising bottles is of major importance and should be explained on the label. Nutricia does not do this.

f) Feeding guide

The feeding guides are very precise, but the quantities in the feeding table should be expressed in terms of the baby’s weight rather than age (babies of the same age may differ a lot in weight and length). Precision is important when it comes to preparing perfect dosages and so, in order to avoid confusion, phrases which might, or might not, be interpreted as synonymous (e.g. “measures” and “levelled measures”) should not be used interchangeably.

Of all label chunks that are consulted, the feeding guide is remembered best. Our respondents found it very useful, more so than the preparation instructions. Most parents read it (almost as many as read the preparation instructions) and understand it without problems. However, the English abbreviation RDA (Recommended Daily Allowance) was not understood by the majority. It should be replaced by a Dutch equivalent.

g) Sell-by-date

The sell-by-date is always to be found at the top or bottom of the package, which is where consumers expect it to be. Because of its importance, it would be even better if the text on the label referred to the place where it can be found.

The majority of parents read it.

h) Superiority of breast feeding (infant formulae and follow-on formulae)

On all the labels the ‘breast-is-best’ warning is marked clearly enough. It is located at the top of the back of the package and is preceded by a heading which is sufficiently highlighted. However, it is often combined with other warnings in a single ‘important advice’ section, which sometimes even includes advertising. Given its importance, it deserves a separate text block. Only half of our respondents, even after prompting, were aware its existence on the label and were able to interpret its intention correctly.
i) Suitable for infants from birth when they are not being breast-fed (infant formulae)

EU-directives require that infant formulae state that they are ‘specially adapted to be given to babies from birth on’, when they are not breastfed.” Legislation adds to this explicitly that the term “adapted” has to be restricted to claims concerning the special composition of the product and must not be associated with the quality of the product, since this might suggest a superiority of the product over breastfeeding. This directive is followed to the letter: the term “adapted” is never used in combination with the qualities of the product in the same clause. In some cases however, lexical cohesion is created beyond the clauses, and in this way the suitability notice plays down the importance of the ‘breast-is-best’ warning.

On one label, the suitability notice appears as a subclause at the end of a rather complex sentence, thus increasing the possibility that this important statement goes unnoticed. On most labels, it is part of the ‘important advice’ text block. Thus it has a prominent place on the label. However the combination of several important warnings in the same section plays down the importance of each one. It would be better for the suitability notice to be given a separate place on the label, for example above the product description.

The term consistentie on one of the packages was only understood by a small number of respondents, and by none at all of the least educated group. It should be replaced by a term such as dikte.

The claim zonder toevoging van suiker (no sugar added) is ambiguous and was misinterpreted by several respondents. Some thought it means that the product doesn’t contain sugar at all and some that it doesn’t contain sucrose, which is not necessarily true. It should be removed from the label.

Claims about the “special composition” of a product (“met extra vitaminen” / extra vitamins, “verrijkt met essentiële vetzuren” / enriched with essential fatty acids, “verrijkt met ijzer” / iron-enriched), especially found on cereals, are superfluous because the composition of babyfood is regulated to a great extent.

j) Warning of incorrect preparation (infant formulae)

This warning should be separated from other warnings and located somewhere near the preparation instructions or feeding guide. The use of negative imperatives (“do not...”) or infinitives in combination with a focus on possible dangers is the most effective formulation. Some respondents explicitly asked for possible side effects to be mentioned (e.g. kidney disease from overdosing).

Most parents were able to contextualise this warning and knew that the product mentions the importance of correct preparation.

k) Specialised personnel advice (infant formulae)

This notice should be taken out of the ‘important advice’ section and given a separate place on the label. Too many respondents were not able to associate anything particular with the notion of ‘doctor’s advice’, suggesting that the notice
does not have the effect it should have. The modality should make the obligation clear (“the doctor should prescribe the number of feeds and the amount...”).

l) Diversified diet (follow-on formulae)

By not including this notice on its follow-on formulae, Milupa flouts EU legislation. On some products the notice appears in a subclause at the end of a fairly complex product description, thus diminishing its importance. Moreover a correct interpretation of the message is hindered because the conditional usage of the follow-on formulae (only in combination with a more varied diet) is unclear. The mere allusion to a ‘diversified diet’ is not enough.

Only a small percentage of respondents knew exactly what is meant by ‘diversified diet’. And yet follow-on formulas aren’t rich enough to serve as a complete diet for the baby and parents should be urged to prepare other food for the baby alongside the powders. This message is, therefore, very important and should appear more prominently on the label.

The term gediversifieerd, which appears on one of the labels, wasn’t understood by a large number of respondents, especially the less educated. It could be replaced by gevarieerde voeding or afwisselen.

m) Recommended age (infant formulae, follow-on formulae and cereals)

The recommended age is clearly indicated on most labels. Most labels indicate it both at the front and also in the product description. Many mark very clearly that they are infant or follow-on formulae by printing the numbers 1 or 2 in very large print at the front of the packages.

Most parents read the recommended age.

n) Gluten (cereals)

The fact that the cereals contain gluten is clearly indicated on the packages, although on some it is somewhat hidden. Most respondents expect this information to be on the front of the package.

Most respondents had some kind of background knowledge about gluten. No one could give a precise scientific explanation, but most said they knew that gluten shouldn’t be in the food of babies under a certain age. Some were more precise and specified ‘not under six months’. The others knew this matter is important for parents with an allergic child. It is striking that so many parents have background knowledge about gluten because most interviewees were infant and follow-on formula-users. This is a fine example of the discourse parents pick up about babyfood (from doctors, clinics and friends).

o) Name of the product and brand Name

The product and brand names are repeated too often on many packages, taking up space which could be used for other necessary information. Just printing them on the facing of a package would be sufficient.
p) Baby bears

Because EU legislation forbids pictures or text which might idealise the use of bottled milk on infant labels, these depict baby bears, bottles and other pictures (sometimes soft landscapes) instead for product identification. Some parents interpret the pictures of baby bears as pictures of a ‘baby’. What legislation wanted to avoid (direct association between infants and feeding bottles) does not seem to be effective. Producers anticipate the association with babies by picturing bears which look very much like children (smiling, with baby clothes, with dummy etc.). The whole atmosphere of softness, evoked by pictures as well as by language use, is meant to bring about association with babies.

1.5. Recommendations

The recommendations which follow in the final part of the Belgian report are meant both for producers, to whom we can suggest numerous improvements, and for (European and national) regulators who formulate the law. Our label analysis shows the ambiguities of formulation in the application of some of the regulations and our consumer study examines the effects that some regulations, intended to protect the consumer, actually have on the consumer.
Design and Accessibility of Baby-food labelling from the Consumers’ Point of View

Summary of the National Report
- Britain -

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11. Summary of the British national report

5.1.1. Introduction
The aim of our study was to describe how baby food labels (infant formulae and infant cereals) are actually read, indicate what information is understood by consumers, and as a result, assess the accessibility of the information on these labels for the consumer. On the basis of our results, and with a view to improving consumer protection, we make a number of recommendations as to how the information on baby food labels can be made more accessible to consumers. Our recommendations not only seek to improve accessibility but also improve label literacy. We define this concept as the consumer’s ability to select label parts relevant to their needs, to interpret wording to obtain needed information, and to assess critically the manufacturer’s intentions.

What follows is a summary of the results and procedures of the British study, which are found in detail in the British Report. This summary is divided into 4 sections. The first section is a general outline of the study. In three further sections, we provide further details of what we discovered about the ‘label production process’, more information on our ‘label analysis’ and a tabular outline of the results of the ‘consumer study’.

5.1.2. General outline of the study
The first substantive part of our report provides an outline of factors which affect the design and content of baby food labels. The first factor we deal with is how European / UK legislation affects label content. We then concentrate on factors which are taken into account in label design and also on how nutritional factors affect the content of baby food labels. All this information was garnered through interviews with experts in the field of label design and nutrition.

The next section of the report contains an analysis of a corpus of 39 labels for infant formulae, follow-on formulae and infant cereals. Broadly speaking, we compare the accessibility of NON-OBLIGATORY and OBLIGATORY information. Two key categories employed in assessing accessibility are + SALIENCE and – SALIENCE. + SALIENCE refers to features of the label that in our opinion are readily accessible to the consumer without too much effort because of spacing and large typeface.

– SALIENCE refers to facets of labels which, because of small typeface, crowding etc, we judge as being less readily accessible to the consumer. All our analysis is indicative of what is general across baby food labels. So any exemplification from the labels we provide in the British report is there to make more concrete the nature of the generality. The ‘interesting results’ in the U.K relate to the relationship between the obligatory and non-obligatory information.

Following the section on label analysis, comes a section in the report outlining the empirical study of label reading behaviour of consumers. The main aim of this study was to test the accessibility to the consumer of label information, and primarily information made obligatory through EC legislation. This study consisted of 30 in-depth oral questionnaires (O.Q) where the parents were asked questions about their label reading behaviour. In the other part of the consumer study, 200
written questionnaires (W.Q) were distributed through Child Care Centres in the London boroughs of Hackney and Islington. The written questionnaires contained no label reproductions. The number of completed questionnaires was 133. Through the following framework we relate the results of our consumer study with the results of our label analysis; in other words, we indicate whether those label parts we regard as being salient (or non-salient) in the label analysis were actually accessible (or inaccessible) to consumers. Here is the framework:

READ BY PARENTS (+ -)       AWARENESS OF THE LABEL PART (+ -)   SALIENCE (+ -)
BACKGROUND KNOWLEDGE (+ -)   IMPORTANCE TO PARENTS (+ -)

The symbols + or – refer to the majority of respondents in both W.Q and the O.Q taken together.

71.3. Label production process

EC-legislation makes certain features on baby food labels obligatory and some prohibited. The obligatory information is indicated in the following table:

Table 1: Obligatory Information for Infant Formulae, Follow-on Formulae and Infant Cereals [79 / 112 / EEC, 91 / 321 / EEC, 96 / 5 / EC]

<table>
<thead>
<tr>
<th>Legislation</th>
<th>Infant Formulae / Milk</th>
<th>Follow-On Formulae / Milk</th>
<th>Infant Cereal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Place of Origin</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>List of Ingredients</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Nutritional Table (e.g. energy values, carbohydrate % etc)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Storage Instructions</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Preparation Instructions (optional: Feeding Guide)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Best-Before Date</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Recommended Age</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Name of Product</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Superiority of Breast-Feeding (statement)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Suitable for Infants from Birth when they are not being breast-fed (statement)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Warning of Inappropriate Preparation (statement)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>The product should be used on the advice of specialised personnel (statement)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>The product should form only part of a diversified diet (statement)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>The product is not to be used as a substitute for breast milk during the first four months of life (statement)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Presence or Absence of Gluten if the Recommended Age is Under 6 months (statement)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

In comparison with the obligatory information, there is much less prohibitory legislation for infant formulae / follow-ons. The main prohibitions are that labelling should not include any picture of an infant or any other picture / text...
which may idealise the use of the product. However, graphic representations are allowed for easy identification of the product or for illustrating preparation.

From interviews with experts in the fields of label design and nutrition, we ascertained the following. Firstly, with regard to label design, there are two main premises across the industry on which designers work. The first one is the presumption that the reader is ‘lazy’. The second premise is what is known as the ‘communication hierarchy’ - the label is designed to guide the reader from LARGE TYPE to SMALL TYPE and from HIGH SPACING TO LOW SPACING. Since legibility is created by space, the copy should not be crowded (copy is usually prepared by the milk manufacturer). We were told also that parents are given as much information on the labels as possible since the manufacturers are concerned that the parents avoid accidents or feeling stressed about using the product. Considerations of aesthetic appeal of the products are bound up with the emotional resonance. So the soft, warm colours on the S.M.A tins (as well as on many other brands) are chosen to ‘reflect’ the maternal mood of the mother. Secondly, different colours are chosen for each product item in order to facilitate easy differentiation. Since shopping with babies / toddlers is a stressful time for the mother, differentiation through colour and not just copy reduces the effort in finding the product on the shelf. In this respect we were told that the aesthetics of baby food are no different to other food products. That is, they are tailored to the image that the brand is trying to portray. For milk powders, this normally means being tailored to the fact that milk powders are mass-market brands. The aesthetics are kept relatively simple and normally try to induce an ‘aaah!’ factor in the mother, hence the use of large fluffy toy icons on the front of the tins. Finally, we were told that certain visual information on the tin (e.g. pictures accompanying preparation instructions) are there to assist those who have less than native-speaker command of English.

With regard to nutritional issues for Baby-food labelling, we outline nutritional information below, which later informed our consumer interviews and questionnaires. This information primarily relates to sugar claims on labels. Manufacturers often state that a product contains sugars found ‘naturally’ in fruit and this may be regarded by a parent as positive. But a distinction between intrinsic and extrinsic sugars needs to be made clear. Intrinisc sugars are those which are found inside the cells of fruit etc. Extrinsic sugars are those which have been removed from this state, e.g. in fruit juice. Because of the removal of cell walls, extrinsic sugars are much more likely in ingestion to come into contact with teeth than intrinsic sugars. Thus, extrinsic sugars are actually more cariogenic (causing tooth decay) than intrinsic sugars. So when a product states that it contains sugars found ‘naturally in fruit’ (i.e. in their intrinsic state), the sugars in the actual product are likely to be extrinsic. Sometimes when a product states ‘no added sugar’, usually in a salient position, the product actually contains maltodextrins, which are slightly less cariogenic than sucrose. Evidence of maltodextrin content is usually found in a much less salient place, i.e., the list of ingredients. It is possible that the manufacturers trade on a conflation (in the public’s mind) of the scientific term ‘sugar’ and folk term ‘sugar’. Scientifically speaking, sugars are either monosaccharides (e.g., glucose, fructose) or disaccharides (e.g., maltose, sucrose, lactose). Polysaccharides (e.g cellulose) are
not sugars. In terms of complexity of molecular structure, maltodextrins are between sugars and polysaccharides and so technically are not sugars, despite their similar effects on teeth. So, when a product says ‘no added sugar’ and also contains maltodextrins, ‘scientifically speaking’ it is telling the truth, even if consumers understand ‘no added sugar’ to mean low cariogenic content.

81.4. Label analysis

The label analysis was conducted using the criterion of accessibility and related to information which EC-legislation makes obligatory. Our comments here refer to generalities across the labels. The preparation instructions (and feeding guide) were always salient. Aside from their salient size, they are always accompanied by a heading and spaced out. The list of ingredients and the nutritional values were also salient in being always accompanied by a heading. But they usually lacked spacing and large enough typeface to allow easy accessibility. While the typeface of ingredients in cereals and infant formulae is usually small, for organic cereals, the ingredients are in large type and in a salient location. Presumably, this is because organic products have no additives and so have ‘nothing to hide’. The storage instructions and the place of origin were always non-salient. Since many of the products in our corpus come from countries other than the UK, we decided to test in the consumer study whether consumers would assume that the ingredients of the product emanated from Britain.

The obligatory statements relating specifically to baby food always appeared in a separate section under the heading of ‘Important Notice’, usually on the reverse of the package. This heading is an agreed statement in the baby food industry. The ‘Important Notice’ heading is no bigger than other headings on the labels, e.g. ‘preparation instructions’, and very rarely in a different font and colour. The obligatory statements are always in small typeface with little spacing. Indeed, the obligatory statements are never highlighted as being discrete propositions but are usually found in paragraph form which in our view hinders accessibility. With regards to infant cereals, if the cereal is gluten free, the information is found in a colourful tick-box. But if the cereal contains gluten, the information is harder to find. (Gluten is a protein found in wheat to which some people, known as coeliacs, have an intolerance.) Strangely, many formulae / milks advertise as ‘gluten free’ even though it is only obligatory for cereals to do this. Milk is in fact free of gluten, and so ‘gluten free’ on a milk / formula sounds better than it actually is.

Much of the space on baby food packages is devoted to non-obligatory information. We divided this non-obligatory information into four categories: ‘Introduction to the Product’, ‘Information on Producer’, ‘Advertising of Related Products’, ‘Nutritional Advertising’. All of these categories of non-obligatory information are salient; there is usually sufficient spacing to assist easy accessibility and the typeface is usually bigger than the typeface for important instrumental information and the obligatory statements. For all of these categories there is usually personalisation. Nutritional advertising usually relates to salient claims about sugar content such as ‘No Added Sugar’. This could be regarded as being misleading, since many products often already contain much sugar. Sometimes when the products say ‘no added sugar’, they actually contain
artificial sweeteners such as maltodextrins. The evidence for maltodextrin content is always found in a much less salient place than the location of the statement ‘no added sugar’, e.g. in small typeface in the list of ingredients.

In the report, obligatory information and non-obligatory information are compared. In general, non-obligatory information is more salient than obligatory information. It is also common to have salient references to breast-milk (e.g. nutritionally close to breast milk) in the non-obligatory information. We regard this as hindering the communicative value of the non-salient obligatory statements related to: i) the superiority of breast-feeding and ii) that the product is suitable for particular nutritional use by infants from birth when they are not breast-fed. The wording of the obligatory warning legislation does not include any personalisation. But references to ‘breast milk’ in the non-obligatory information are usually saliently personalised, e.g. ‘SMA Gold is nutritionally complete to breast milk, providing the nourishment your baby needs’. Similar to before, we judge personalised and salient non-obligatory references to ‘breast milk’ as hindering the communicative value of the non-salient and non-personalised obligatory ‘breast feeding is best’ statement.

1.5. Consumer study

The study of the reading behaviour of labels by consumers was preceded by a pilot study, which consisted of 25 interviews. The consumer study itself consisted of 30 in-depth oral questionnaires where the parents were asked questions about their label reading behaviour [labels absent oral questionnaire - L.A.O.Q] and other questions where the parents were asked to comment on particular labels [labels present oral questionnaire - L.P.O.Q]. L.A.O.Q was intended primarily to test the salience of label features in memory. But what about L.P.O.Q? Much of a label consists of ‘paralinguistic features’, features which are extra-linguistic such as colours, pictures, size of typeface, shape of the package, location of information on the package etc. So posing questions about actual wording on the labels, but in the absence of paralinguistic features, may have led to misleading results. This, then, was why L.P.O.Q was conducted. In other part of the consumer study, 200 written questionnaires (W.Q) were distributed through Child Care Centres in the London boroughs of Hackney and Islington. The written questionnaires contained no label reproductions. Clearly, there are advantages and disadvantages with both oral and written questionnaires. The oral questionnaires (O.Q) are more reliable since the questions can be clarified for the respondent, but the written questionnaires reach a greater number of respondents. Sometimes for particular label features, there are no clear values for the above categories. ‘No clear value’ is signalled by (?)

Of the 200 written questionnaires distributed, 133 were filled in. The vast majority of respondents were women; only five men filled in questionnaires. For the oral questionnaires, none of the respondents were men. The majority of respondents were first-time mothers (WQ: 70%; OQ: 60%). Most of the respondents had been educated only to the age of 16 (WQ: 64%; OQ 73%). The remainder of the respondents were as follows: education only to 18 (WQ: 17%; OQ: 10%); education over 18, not university course (WQ 11%; OQ 4%) university education (WQ: 8%; 13%).

- 15 -
The results of the study of consumer reading behaviour in relation to the salience of obligatory (and non-obligatory) information on the labels is summarised below.

Table 2: Obligatory Information on the labels in relation to the results of the consumer study

<table>
<thead>
<tr>
<th>Obligatory Information</th>
<th>READ BY PARENTS</th>
<th>AWARENESS OF THE LABEL PART</th>
<th>BACKGROUND KNOWLEDGE</th>
<th>IMPORTANCE TO PARENTS</th>
<th>SALIENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of the product</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Place of Origin</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>List of Ingredients</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Nutritional Table (e.g. energy values, carbohydrate % etc)</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Best-before date</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Storage Instructions</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Preparation Instructions (optional: Feeding Guide)</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Warning of Inappropriate Preparation (statement)</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Recommended age</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Superiority of Breast-Feeding (statement)</td>
<td>-</td>
<td>?</td>
<td>+</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>The product should be used on the advice of specialised personnel (statement)</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Suitable for Infants from Birth when they are not being breast-fed (statement)</td>
<td>?</td>
<td>?</td>
<td>+</td>
<td>?</td>
<td>-</td>
</tr>
<tr>
<td>Presence or Absence of gluten if the Recommended Age is Under 6 months (statement) (cereal)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Table 3: Non-Obligatory Information on the labels in relation to the results of the consumer study

<table>
<thead>
<tr>
<th>Non-obligatory information</th>
<th>READ BY PARENTS</th>
<th>AWARENESS OF THE LABEL PART</th>
<th>BACKGROUND KNOWLEDGE</th>
<th>IMPORTANCE TO PARENTS</th>
<th>SALIENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absence of Gluten (Infant / follow-on)</td>
<td>?</td>
<td>?</td>
<td>-</td>
<td>?</td>
<td>+</td>
</tr>
<tr>
<td>Sugar information</td>
<td>?</td>
<td>?</td>
<td>-</td>
<td>?</td>
<td>+</td>
</tr>
</tbody>
</table>
Design and Accessibility of Baby-food labelling from the Consumers’ Point of View

Summary of the National Report
- Finland -

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May 2000
21. Summary of the Finnish national report

The aim of this project was to examine the design and accessibility of baby food labels from the consumers’ point of view. Accessibility means “what it is which makes texts easy or difficult to understand. An accessible text is easy to understand; an inaccessible one - one which is difficult” (Cook 1995, 9). Our attempt was to answer the following questions: what do parents read on baby food labels, what do they find important, where do they read the information, do they find it easily, do they understand what they read or do they when having problems have to infer the right interpretation. At the outset, an important aspect was to examine baby food legislation. Consequently, legislation was used as an important framework in the project.

101.1. Brief recapitulation of the corpus and methodology

The Finnish corpus comprised 33 packets of which 18 were analysed in detail: 6 infant formula labels, 8 baby gruel labels and 3 baby porridge labels. The labels not included in the in-depth analysis were almost similar to the labels included in the analysis. Only their colours, pictures and product names were different. A more detailed description of the corpus can be found in Appendix 1.

Our field of study was linguistics, which provided us the tools to analyse the labels in detail from several viewpoints. The methodology consisted of the following steps: 1) textual analysis of the labels, 2) empirical parent discourse study and 3) discourse analysis. The first meant that we looked at the labels from different textual perspectives and examined what kind of features might inhibit accessibility and have an influence on interpretations made by parents. In the second one, we accomplished the empirical part of the project by sending out questionnaires to 200 (+100 in Finland) mothers and by interviewing 34 parents in post-natal clinics in Oulu (see appendix 2 for the questionnaires and interviews in Finnish). The third is a combination of the first two, which has aimed at finding out what kind of problems parents have in understanding baby food labels and what could be done to improve comprehension.

Text analysis consisted of the analysis of pragmatical features, cohesion, lexis and grammar. By examining these we examined how different textual aspects affect accessibility, either in a positive or negative way. We also examined how labels persuade consumers (for example, to buy and use a product) via trust, aesthetics, instrumental claims and emotions. In the empirical study we looked at whether parents read a particular label part, whether they are aware of a particular label part, whether they have background knowledge to interpret a label part accurately, and whether a particular label part is important to parents. By this we were able to see whether parents find the information they seek, whether they are aware of other important information and whether they understand the information they read and find important.
1.2. Label production process

Our first task was to acquire knowledge on who designs and produces baby food labels, what kind of issues are taken into account when labels are produced, how legislation affects this procedure and what is regarded as important by the label designers. We also interviewed nutritional experts on certain aspects of labelling.

Legislation concerning Baby-food labelling is detailed and minute (both EU legislation and Finnish legislation), especially with respect to infant and follow-on formula labels which are required to have detailed information on the contents and three different obligatory notices. Infant and follow-on formula legislation has been influenced by the WHO-code (1981). All the three baby food producers in Finland take account of the legislation and think it is very important.

Due to the fact that most of the baby food products sold in Finland are manufactured by foreign companies, most of the visual design of the labels is done abroad (especially in Sweden). The texts are in most cases either designed in Finland or translated from Swedish. The only Finnish manufacturer, Valio, on the other hand, designs all the texts and decides upon the visual aspects itself. The layout of the labels is designed by a professional copywriter.

In the interviews, nutritional experts regarded nutritional and ingredient contents as the most important information on baby food labels. They also said that preparation instructions and all important obligatory notices and warnings are very important, because they guide the consumers to the right use of a product.

1.3. Labels

Textualisation of the sender and receiver (“us, we” and “you”) can strengthen the impact of a message. Especially the latter (“you”) can be effective since it personalises the reader. This is almost always done in preparation instructions by the use of imperatives (“pour”, “stir”, etc.). Frequently and more explicitly, however, textualisation is used in commercial texts as persuasive advertising discourse. This affects the readers’ impressions and images of a product, especially if textualisation is done by referring to babies, as in “This porridge is good for your baby’s stomach.” Furthermore, textualisation of the sender and receiver in obligatory notices or warnings (esp. infant formula) is used rarely, although the contrary would increase the effect of the message.

The paralanguage and non-linguistic means of explanation of preparation instructions, list of ingredients and nutritional information could often be improved. In order to increase accessibility, all preparation instructions should clearly separate the different steps and also otherwise emphasise important aspects of the procedure (e.g. by bold typeface). Also, lists of ingredients are sometimes inaccessible due to intermingled Finnish and Swedish information.

Baby food labels contain three different kind of information types: 1) advertisements which provide information about the product in question or other products, 2) information that is directly important to consumers, for example list of ingredients, sell-by-date etc. and 3) information which is very important, but
which does not belong to the parents’ micro discoursal reading habits, for example superiority of breastfeeding and warning of inappropriate preparation.

According to the empirical study, advertisements (#1) are not important to consumers. On the contrary, the information units in #2 are important to parents. In addition, they are frequently read by parents. Thus, label designers should put emphasis on what we could call inward salience. By this we mean the sort of salience that makes individual information units easy to read. However, the problem with #3 is that parents are not aware these information units and they do not read them because it is not part of their micro discoursal reading habits. Consequently, label designers should give emphasis to what we could call outward salience. By this we mean that these particular units should stand out from the label or and be easily perceivable and found with just a glance. In addition to being easily found, these units must obviously be easy to read as well.

Place of origin can on some packets be misleading due to pictures or other information. In such cases, the notice of the place of origin is generally non-salient and difficult to find. Also, on infant formula labels the obligatory notices and warnings are often non-salient or made inaccessible by redundancy. In addition they are often put together in one paragraph, which lessens their individual effect. Also, it can be the case that the so-called suitability notice, if given right after the superiority of breastfeeding notice, diminishes the impact of the latter semantically. Storage information as well as information on gluten are sometimes difficult to find. Since both of these are important they should be given more prominence.

Finnish baby food labels do not have major problems with textual cohesion. Neither do Finnish labels repeatedly mention their brand names in preparation instructions, which would decrease accessibility. On the other hand, lexical cohesion is sometimes used persuasively in advertisements on baby porridge labels. There was only one example of confusing use of conjunctive relations.

Baby food labels have several specialised and difficult words (riboflavin, niacin, pantothenic acid, etc.), vague words (‘unsugared’, ‘unsweetened’). These words are highly specific and cannot be changed to more familiar words. There are some methods, however, to make words in nutritional and ingredient contents more accessible: one of them is to give nutrient or ingredient groups appropriate headings, which would enable parents to infer that, for example, riboflavin is a vitamin. In addition, education or leaflets on the meaning of these words would help. Emotive and evaluative words are mostly used in advertising texts to promote the products and persuade parents to buy the product. Abbreviations are rare, but sometimes difficult. However, they are also highly specific and cannot be replaced. Finnish baby food labels rarely use intensifiers (e.g. excellent, very, many), but they do occasionally occur in promotional sections of the texts. Sometimes in advertising information, colloquial words and synonyms are used to “translate” difficult words in nutritional and ingredient tables. This does not provide accurate information and moreover does not always tell the whole truth.

With respect to grammar, Finnish labels are well designed. This is due to the generally small packet size in Finland, as a result of which there is little space for long-winded sentences. Semantically there is one major problem, however, which
concerns the obligatory suitability notice on infant formula labels. Different labels provide the information in different ways so that some labels thematise the infant formula as a product while some others thematise breast milk or even inability to breastfeed. In the latter, the informative purpose of the legislation is turned into an emotionally persuasive function (to buy the product).

Preparation instructions should contain all the necessary information which is needed to prepare the product. This is not always the case. Sometimes parents are left to infer whether they need to do something or not and how they need to do it.

131.4. Consumer study

The following is entirely based on the results of the empirical stage of our project. According to the empirical parent discourse study, less educated parents read baby food labels slightly more often than those who have more than average education. Parents who actively seek information and parents whose children have special dietary requirements find labels more difficult to understand than parents who do not.

In the text analysis it was shown that there is a possibility that parents are mislead with respect to the notice of place of origin if labels provide visual or other information that refers to “Finnishness.” This was also proved by the empirical study. Approximately \( \frac{1}{3} \) of the respondents thought that a particular label (visual hints of Finnishness, e.g. flag, certificate) was Finnish, although it was manufactured in Sweden. Although the label contains information on the origins, it is very non-salient and thus difficult to find.

With respect to nutritional and ingredient tables the results of the text analysis were proved right: some parents mentioned that intermingled Swedish and Finnish information increases the level of difficulty and makes most of the terminology difficult to understand. Quite often parents also complained about the small type size of the information.

The list of ingredients is more important to parents than nutritional tables. What was interesting was that some parents let “adult food label discourse” affect their reading of baby food labels. Many people in Finland read only fat content and amount of energy from general food labels and consequently transfer this habit to reading of baby food labels. This should not always happen, since it is not important to specifically restrict fats in the diets of children under 2 years of age.

From the consumers’ point of view, it might be a good idea to re-evaluate the purpose and necessity of nutritional tables on infant formula labels. The legislation strictly determines the contents of infant formula and thus the nutritional content is the same, with very small differences. Thus, it does not seem to have other meaning to parents than to convey trust in the product.

Parents do not have major problems with preparation instructions. This is not necessarily due to good preparation instructions but rather to the fact that parents have good background knowledge of how to prepare baby food. In the interviews, we showed parents a label which had non-chronological preparatin steps, fairly
poor pictures and difficult words. Parents solved the problems, mostly without noticing them at all. Parents prefer explicit, concise, listed / numbered and clear instructions.

Pictures are useful for most parents. It is also assumed that for immigrants, clear pictures, which would enable the preparation of a product without consulting the text would facilitate the preparation procedure.

Infant formula labels have three different kinds of obligatory notices or warnings. Curiously, parents argue that they read them, but they cannot remember them when asked. This poses a great problem. There are two major reasons for this. First, these notices are often non-salient and secondly, parents do not have the micro-discoursal knowledge to try to find them (cf. preparation instructions which they automatically try to find), so they miss them on the labels. Thus it would be important to give these notices more salience so that they are easily found without any necessity to try to find them. Label designers could also take into account how parents read the labels and consequently attach a unread piece of information with information that is read frequently (e.g. best before date with superiority with breast feeding) (see EU-wide recommendations).

With respect to all three obligatory notices on infant formula labels, it can be said that the majority of parents do have good background knowledge on them. In other words, they know breastfeeding is best and that they should seek expert advice, they know infant formula is suitable for babies from birth, and they know that inappropriate preparation may cause health hazards. However, we must bear in mind that this does not apply to all parents. There are people who, for example, do not follow the preparation instructions faithfully. A prolonged mispreparation of infant formula may cause severe health problems to the baby. Consequently, making these notices explicit, salient, and easy to read and understand is very important.

In the text analysis, as mentioned above, we noticed how the suitability notice is provided in many different ways; one thematising the product, while the other thematises failure to breastfeed. It was proved in the questionnaire response that a notice that thematises breastfeeding (or failure to breastfeed) is regarded as insulting, because it makes mothers feel guilty and, according to the response, separates mothers into “good mothers” and “bad mothers”. Notices that thematise the product are regarded as more neutral although, surprisingly, they are often thought to be infant formula advertisements. As far as we are concerned, that is not the purpose.

A few baby gruel or porridge labels have information on whether the product contains gluten or not. In certain situations this notice is required by legislation. Most parents do not read this information, which is understandable since only a small minority suffers from coeliac disease. Parents know, broadly speaking, what glutenfree means, although they often think it has something to do with grain allergy, which it does not.

The table below summarises the results of the consumer study with respect to the obligatory information:
Table 1. Summary of the results of the consumer study

<table>
<thead>
<tr>
<th>Obligatory information</th>
<th>salience</th>
<th>read by parents</th>
<th>awareness of label part</th>
<th>background knowledge</th>
<th>importance to parents</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Place of origin if otherwise misleading</td>
<td>(-)</td>
<td>(+)</td>
<td>(+)</td>
<td>(-)</td>
<td>(+)</td>
</tr>
<tr>
<td>(2) List of ingredients</td>
<td>(-)</td>
<td>(+)</td>
<td>(+)</td>
<td>(Ø)</td>
<td>(+)</td>
</tr>
<tr>
<td>(3) Nutritional information</td>
<td>(+)</td>
<td>(+)</td>
<td>(+)</td>
<td>(-)</td>
<td>(+ or -)</td>
</tr>
<tr>
<td>(4) Storage instructions</td>
<td>(-)</td>
<td>(+)</td>
<td>(+)</td>
<td>(Ø)</td>
<td>(+)</td>
</tr>
<tr>
<td>(5) Preparation instructions</td>
<td>(+ or -)</td>
<td>(+)</td>
<td>(+)</td>
<td>(+)</td>
<td>(+)</td>
</tr>
<tr>
<td>(6) Superiority of breastfeeding</td>
<td>(-)</td>
<td>(+)</td>
<td>(-)</td>
<td>(+)</td>
<td>(-)</td>
</tr>
<tr>
<td>(7) Specialised personnel advice</td>
<td>(-)</td>
<td>(+ or -)</td>
<td>(-)</td>
<td>(+)</td>
<td>(-)</td>
</tr>
<tr>
<td>(8) Suitable for infants from birth when they are not breast fed</td>
<td>(-)</td>
<td>(+)</td>
<td>(Ø)</td>
<td>(Ø)</td>
<td>(-)</td>
</tr>
<tr>
<td>(9) Warning of inappropriate preparation</td>
<td>(-)</td>
<td>(+)</td>
<td>(-)</td>
<td>(+)</td>
<td>(-)</td>
</tr>
<tr>
<td>(10) Recommended age</td>
<td>(+)</td>
<td>(+)</td>
<td>(+)</td>
<td>(+)</td>
<td>(+)</td>
</tr>
<tr>
<td>(11) Name of the product</td>
<td>(+)</td>
<td>(+)</td>
<td>(+)</td>
<td>(Ø)</td>
<td>(+)</td>
</tr>
<tr>
<td>(12) Sell-by-date or best before date</td>
<td>(+)</td>
<td>(+)</td>
<td>(+)</td>
<td>(Ø)</td>
<td>(+)</td>
</tr>
<tr>
<td>(13) Gluten</td>
<td>(-)</td>
<td>(-)</td>
<td>(+ or -)</td>
<td>(+ or -)</td>
<td>(+ or -)</td>
</tr>
</tbody>
</table>

In general, parents read baby food labels from very personal viewpoints which are affected by allergy in the family, special diets and different macro-discoursal beliefs. There is great variation in how parents read labels and how well they understand them: some parents want to have very detailed information while some are completely indifferent to what the labels say. It goes without saying that label designers and legislation should try to attract the attention of the latter. A good guideline could be: design the texts for the labels so that a person who has never read them and knows nothing about the product can easily find, read and understand the most important information without any ambiguity. In other words, critically ponder what information really is important to consumers.

As was mentioned in the beginning of this report, baby food producers argue that they put a lot of emphasis on the design of baby food labels. It also became evident that, according to the producers, legislation is read carefully and applied meticulously.

We can say that Finnish baby food labels are, with respect to their design and accessibility, fairly good. Although there are some bad labels the majority only need some improvements. As regards legislation, there are no explicit violations, although a few labels miss the obligatory notice of the presence or absence of gluten (cereals for children less than 6 months) and a few labels could be
misleading with respect to their place of origin. In some cases, one could argue that the spirit of legislation has not been followed, but twisted in order to make the product more appealing to the ultimate consumer. This applies especially to the obligatory notices on infant formula labels.

Unfortunately we were not able to reach enough immigrants or refugees for our study. We only received one questionnaire back from a non-native Finn. We assume that reading of Finnish or Swedish information on Finnish baby food labels is very difficult for foreigners. Thus the use of illustrations and other visual ways to explain the use of the product is recommended in order to increase communicative accessibility of the labels for foreigners.

Those label units that are regarded as most important by nutritional experts are generally speaking easy to find. However, they are often difficult to read, as has been proved above. A lot can be done in order to improve this situation. The recommendations chapter in the national report lists the recommendations for improvements that we have made with respect to the design and accessibility of the Finnish baby food labels. On the other hand, the EU-wide recommendations lists the recommendations that are important from the European point of view. These do not contradict with the Finnish recommendations.
Design and Accessibility of Baby-food labelling from the Consumers’ Point of View

Summary of the National Report
- Spain -

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May 2000
**31. Summary of the Spanish national report**

**14  1.1. Introduction**

The main aim of this project was to “educate consumers in EU on how to interpret relevant information on babyfood labels” and “by means of this initiative, to contribute to the harmonisation of food labelling and food safety in the EU.” The achievement of this goal required the realisation of some previous research-oriented work basically consisting in gathering information on how babyfood labels are actually designed in Spain and how consumers cope with them, before suggesting possible improvements in the design of the labels and elaborating written materials with the specific intention of educating the consumers themselves. The description and outcome of all the ensuing tasks carried out throughout the various stages of the project is summarised in the report. First, an overview of the different contextual constraints that determine the ultimate content and form of babyfood labels is included. Then, the results of the linguistic analysis of the Spanish labels are summarised. Finally, the results of the empirical study on the interaction between consumers and babyfood labels are presented.

**15  1.2. Contextual constraints on the design of labels**

1.2.1. Legal requirements

The actual design of babyfood labels is to a great extent constrained by legal texts regulating what information must, can and cannot be included in labels. The conditions that regulate the labelling of foodstuffs in general are stated in directive 79/112/EEC. The conditions that regulate the actual content and form of the babyfood labels we were interested in appear in two additional directives: Directive 91/321/EEC, on the labelling of infant and follow-on formulae; and directive 96/5/EC on the labelling of cereal-based products. These three directives have been transposed into the corresponding Spanish national Reales Decretos (‘Royal Decrees’) with only minor changes: Directive 79/112/EEC into RD 212/1992; Directive 91/321/EEC into RD 72/1998 and Directive 96/5/EC into RD 490/1998.

Directive 79/112/EEC (Spanish RD 212/1992) lays down a general framework for the labelling of foodstuffs for sale to the ultimate consumers. It is inspired by the belief that “the principal consideration for any rules on the labelling of foodstuffs should be the need to inform and protect the consumer (...). Therefore a list should be drawn up of all information which should in principle be included in the labelling of all foodstuffs.” This directive contains all the particulars that must be included in the labels of foodstuffs in general (see Table 1 below) plus important requirements on the form in which this statutory information must be presented in labels, principally that it shall be easy to understand and located in a conspicuous place so that it may be easily visible, clearly legible and indelible and that it shall not in any way be hidden, obscured or interrupted by other written or pictorial matter.

Directive 91/321/EEC (Spanish RD 72/1998) lays down the compositional and specific labelling requirements, especially informational requirements (see Table 1 below), that must be met by infant and follow-on formulae commercialised in the
EU. This directive also contains explicit norms for the advertising of these products and specific norms for the elaboration of educational materials on them.

Finally, directive 96/5/EC (Spanish RD 490/1998) lays down both the compositional and labelling requirements of processed cereal-based foods and babyfoods for infants and young children. The statutory information that must be included in labels of these products also appears in Table 1 below.

To finish with this brief review of the different European and Spanish legal documents which have a bearing on the design of babyfood labels, mention needs to be made of a Council Resolution (93 C 110/01 of 5 April 1993) containing a series of recommendations to the Commission on future actions to be taken for the ultimate improvement of labels in general. It is explicitly stated in this resolution that consumers accord great importance to the information they obtain from labels. Among other things, the resolution invites the Commission to take measures so as to ensure that labelling be comprehensible, clear, relevant and transparent.
<table>
<thead>
<tr>
<th>Directives</th>
<th>Statutory information</th>
<th>Infant formulae</th>
<th>Follow-on formulae</th>
<th>Cereal porridges</th>
</tr>
</thead>
<tbody>
<tr>
<td>D. 79/112/EEC</td>
<td>Name of the product</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>RD. 212/1992</td>
<td>List of ingredients</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td></td>
<td>Net quantity</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td></td>
<td>Sell-by date</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td></td>
<td>Storage instructions</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td></td>
<td>Name and address of producer</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td></td>
<td>Place of origin</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td></td>
<td>Instructions for use</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>D. 91/321/EEC</td>
<td>Suitable for babies when not breast-fed</td>
<td>√</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RD. 72/1998</td>
<td>Iron requirements</td>
<td>√</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Suitable over 4 months</td>
<td></td>
<td>√</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Diversified diet</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Not substitute breast milk</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nutritional table</td>
<td>√</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Warning inappropr. prep.</td>
<td>√</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Superiority breast milk</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Spec. personnel advice</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D. 96/5/EC</td>
<td>Age of consumption</td>
<td></td>
<td></td>
<td>√</td>
</tr>
<tr>
<td>RD. 490/1998</td>
<td>Gluten content</td>
<td>√</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nutritional table</td>
<td></td>
<td>√</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Warning inappropr. prep.</td>
<td></td>
<td></td>
<td>?</td>
</tr>
<tr>
<td></td>
<td>(“when necessary”)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1: Statutory information of infant formulae, follow-on formulae and cereal porridges

1.2.2. Producers

Interviews with representatives of two producers commercialising their products in Spain (ABBOT and ORDESA) were carried out in order to know their interests and aims in the process of label design. Both insisted on the constraints that legal documents impose on the design of labels and regarded legislation as the most...
important factor in the process of label design. In general, they consider that the existing legal documents provide all the information they need for the design of labels and, consequently, they feel no need to seek advice from nutritional experts. No need is felt either to carry out surveys among consumers in order to know about their characteristics and/or information requirements. The contact person of ORDESA, however, admitted that, in spite of the existing strict legal requirements, there is also room in labels for advertising their products.

21.2.3. Nutrition experts

The pediatrician who was interviewed considered the preparation instructions to be the most important information on the labels of these products (specially formulae), more specifically, the instructions on the exact quantities of water and powder to be added to the bottle. In her opinion, parents occasionally deviate from the appropriate method of preparation of the bottle and their disregard for this information may bring risks to the health of the baby.

161.3. Linguistic analysis of labels

A total of 62 labels of babyfood products commercialised in Spain were selected and analysed in detail, 20 of infant formulae, 14 of follow-on formulae and 28 of cereal porridges. An in-depth text-linguistic analysis of all these labels was carried out, aimed at identifying recurrent content and formal features of the Spanish labels of the products concerned and possible problematic areas in their linguistic design.

Two pragmatic features were paid attention to in the analysis: the presence of explicit references to the reader and the degree of salience of different messages in the labels. On Spanish infant and follow-on formulae labels, explicit references to the reader are common both in the preparation instructions and in the warning that insists on the correct preparation of the product. Indeed the explicit mention of the reader in these two obligatory messages may render them more forceful and therefore more effective. In contrast, in cereal porridges labels, the presence of the reader tends to be only acknowledged in non-obligatory advertising sections where it has a persuasive function.

As mentioned above, Directive 79/112/EEC not only states the particulars that must appear in labels, but also requires them to be salient; specifically, those particulars must be included “in a conspicuous place in such a way as to be easily visible, clearly legible and indelible” (art. 11.2). In the text analysis the following categories of information were found to be particularly salient in labels: preparation instructions, nutritional analysis, information on gluten content and on recommended age of consumption (the latter two only in cereal porridges). Other statutory messages such as the sell-by date, the storage instructions, the warning of inappropriate preparation or the message that the product be taken only under specialised personnel advice are not salient enough on Spanish babyfood labels.

Our text analysis has also paid attention to the use of different cohesive devices in labels (i.e. explicit signals of the connection between their different parts): conjunctive expressions, syntactic parallelism, lexical cohesion and sequencing of
Conjunctions and text connectors, that is, the formal expressions of the logical relation existing between different messages, are not very frequently found in our labels, mainly because labels consist of rather independent pieces of information. However, in the advertising sections stating the positive properties of the product (especially in labels of cereal porridges), connectors with additive meaning, such as también (‘also’) or además (‘furthermore’, ‘besides’) are frequently used, where they serve a persuasive function by creating a cumulative emphatic effect.

Syntactic parallelism, i.e. the repetition of a specific syntactic structure in consecutive messages, is frequently employed in the preparation instructions section of both types of products, where it helps making the reader’s decoding task easier. This device is also frequently employed in the non-obligatory sections of labels with a rather different function, creating a cumulative effect that helps emphasising the positive properties of the product.

Experts in the design of instructions have found that ordering the different steps in the exact order in which they are to be carried out increases the effectivity of the instructions. In general, the preparation instructions in the Spanish labels are satisfactory in this respect, though some departures from the ideal chronological ordering have also been observed to exist.

Spanish babyfood labels contain specialised vocabulary from the fields of the health and nutritional sciences. Vocabulary of this type is very frequently used in the non-obligatory sections of the labels of both formulae and cereal porridges, where it probably aims at surrounding the product with a positive aura of scientific sophistication. Another problematic aspect of the lexis of labels is the presence of vague and ambiguous expressions, for instance, dieta diversificada (‘diversified diet’), lugar fresco y seco (‘cool and dry place’) or temperatura adecuada de toma (‘adequate feeding temperature’).

Labels have been found to make frequent use of intensifying and emotive vocabulary. Language of this type renders important statutory messages more forceful, thereby increasing the possibilities of the message reaching consumers. In non-obligatory advertising sections emotive and intensifying vocabulary helps emphasising the positive properties of the product.

As far as the grammar of labels is concerned, the linguistic analysis revealed some systematic features that may negatively affect the transmission of information. First, important obligatory messages (e.g. message that the product be used only under specialised personnel advice or possible side-effects of an inadequate preparation of the bottle) are sometimes placed in embedded clauses, which reduces the desirable salience of these important pieces of information. Secondly, excessive use is sometimes made of complex, ambiguous noun phrases where the idea would probably be more conveniently expressed by means of a clause. In this respect, the use of difficult nominalised structures should be particularly avoided in sections containing vital information such as the preparation instructions or the warning of inappropriate preparation.
171.4. Consumer study

Our ‘consumers’ study’ was meant to gather information on how consumers actually interact with labels. For this purpose, 200 copies of a written questionnaire were distributed among actual consumers of the products concerned through different health centres of the area of Santiago de Compostela. Of these, only 43 were returned, and the data thus obtained submitted to analysis. The questionnaire included items on: 1) the kind of decisions consumers make when buying the products; 2) consumers’ general attitudes towards the quantity and quality of the information in labels; 3) their interpretation of recurrent expressions to formulate statutory messages; 4) socio-demographic information about respondents. As a complement to the written questionnaire, a ‘group test’ was carried out at a second stage, in order to gather information on were some important aspects of the interaction between consumers and labels that seemed to require a more direct observation. 41 subjects participated in this test, which was conducted in the context of a pre-natal course in a health centre in Santiago de Compostela. An initial block of questions of the test was meant to gather socio-demographic information on the subjects themselves. A second block focused on the interpretation by consumers of a number of set expressions used in labels to convey important obligatory messages. The remaining more important part of the test consisted of a number of tasks meant to gauge the degree of effectiveness of specific recurrent design options (location, layout, wording) actually used in the expression of important obligatory messages in labels.

Both the written questionnaire and the complementary group test provided us with important information on the following issues: 1) the degree of importance parents attach to specific sections of labels; 2) what sections parents read/don’t read in labels; 3) whether parents are aware of the presence of specific items of information in labels; and 4) whether parents have the necessary background knowledge to adequately interpret specific sections of labels. Table 2 below contains a general summary of the results obtained. The question marks in the table indicate that the instrument used did not provide us with the corresponding information, and the latter is therefore not available.
Table 2: Results of the consumer study with respect to the statutory information in babyfood labels

Both the written questionnaire and the group test provided us with rather interesting information on other more general aspects of the interaction between consumers and labels, such as consumers’ reading habits and general attitudes towards both the content and form of labels.

Most parents (59.5%) read labels of both formulae and cereal porridges quite often (less educated parents more so than more educated ones). Yet, labels are not the most important source of information on these products for parents. Again, a significant correlation has been observed to exist between educational level and degree of importance attached to the information in labels: less educated parents consider labels to be more important than more educated parents. But, in general, parents consider the information they obtain from doctors (pediatricians) to be more reliable than the one they obtain from labels. Actually, the pediatricians’ advice is the strongest factor influencing parents’ actual choice among the range of products which are available at the shopping place (90.7% in formulae and 53.5% in cereals). Parents prefer to buy these babyfood products at the pharmacy (70.4% in formulae and 51.2% in porridges) rather than at the supermarket.
In general, parents are rather satisfied with both the quantity and the quality of the information included in the labels of these products: they consider this information to be highly interesting, not excessive and do not find the language employed to be particularly difficult for them.

Consumers are particularly aware of the existence of the following categories of information in labels (they have seen them at least once in existing labels): ingredients, nutritional table, preparation instructions, sell-by date, gluten content, storage instructions, net weight, age of recommended consumption and warning of inappropriate preparation.

Of all the pieces of information found in labels of these products, consumers deem the sell-by date to be the most important for them, followed, in a decreasing order of importance, by the recommended age of consumption, the information on the gluten content, the storage instructions, the warning of inappropriate preparation, the message that the product be used only under specialised personnel advice, the preparation instructions, the ingredients and the nutritional table.

Those pieces of information which parents consider to be of utmost importance for them are, in general, actually getting through to them, either because they are conspicuous enough in labels (the nutritional table, the preparation instructions, the information on gluten content and the recommended age are generally salient in existing labels) or because parents make an effort to find them and they actually do, irrespective of whether they are visible or not (the sell-by date, the storage instructions and the warning of inappropriate preparation are normally non-salient in labels). Some other statutory messages (e.g. place of origin, message insisting on the superiority of breast-feeding, producer’s address and the message that the product be used only under specialised personnel advice) are actually present in labels but consumers do not generally see them. For instance, the message that the product be used only under specialised personnel advice is generally considered by consumers to be important for them, but does not seem to be adequately reaching the public: 80% of the respondents to the written questionnaire had never seen it in labels.

As far as background knowledge is concerned, in general, consumers possess the necessary knowledge on many babyfood-related matters to interpret the information in labels, though some particular, but still relevant messages seem to pose interpretation problems. In particular, parents probably know how to prepare a bottle, but do not adequately identify the most important preparation instructions: they only accord secondary importance to the correct proportions of water/powder to be added to the bottle, which is actually considered to be of utmost importance by pediatricians. Furthermore, parents seem to have problems with the interpretation of what seems to be too concise and ambiguous expressions, such as dieta diversificada (‘diversified diet’), temperatura adecuada de toma (‘adequate feeding temperature’) or guardar en lugar fresco y seco (‘store in a cool and dry place’), which would consequently require more explicit formulations. The study has also revealed that parents have problems with the interpretation of the expressions actually used in existing labels for the recommended age of consumption of the products and the expression leche para lactantes (‘infant milk’), the statutory name of the corresponding product (over...
70% of respondents interpreted this expression wrongly). Furthermore, only a minority of parents (35%) correctly identified the meaning of the symbol which is sometimes used to inform consumers that the product is gluten-free, which would recommend that, for some time, the symbol be accompanied in labels by some textual support. Finally, although parents have a deep-rooted belief in the superiority of breast-feeding, the study has shown that this belief seems to be undermined by the inclusion in labels of non-obligatory messages describing the virtues of the corresponding products. Either these messages should be prohibited altogether or more emphasis be made on the obligatory message insisting on the superiority of breast-feeding.
Design and Accessibility of Baby-food labelling from the Consumers’ Point of View

Summary of the National Report
- Sweden -

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Anders Björkvall
Department of Scandinavian Languages
University of Stockholm
May 2000
41. Summary of the Swedish national report

181.1. Methodology

The aim of this study was to describe the discourse of baby food labels and in order to do this the whole communication chain of sender – label – receiver was studied. The label production process and the design related choices for Swedish infant formula, gruel, and baby porridge labels have been described. A description of the labels themselves has been presented, along with results of a consumer study where the readers of the baby food labels have been asked about label reading habits, understanding of the labels etc.

The senders’ part of the communication chain has been described from three angles. First, the legislation that affects the design of, and text on, the labels was discussed; the obligatory information, i.e. information that has to be on the labels, and the forbidden information was identified. Then the producers were interviewed, together with their ad agencies that in most cases are responsible for the overall design of the labels. A meeting with representatives from the National Food Administration was also arranged, where the labelling regulations and other label related issues were discussed. Finally a nutritionist was interviewed in order to obtain the necessary medical and nutrition related background to the design of the labels.

All the 35 labels for infant formula, gruel, and baby porridge on the Swedish market were collected and analysed through the use of linguistic methods. Pragmatic features, cohesion, lexis, and grammar on the labels were analysed. The main purpose of the label analysis was to identify possible accessibility problems, but other aspects of the labels were discussed as well. The degree of salience of certain elements on the labels was important in the label analysis. Seven salience criteria were formulated in order to make comparisons between different pieces of information on the labels.

The consumer study consisted of 30 in-depth interviews that were carried out at Child Care Centres in the Stockholm area and 200 written questionnaires that were also distributed through Child Care Centres. 76 % of the written questionnaires were returned.

The results of the consumer study were treated in relation to the EC-legislation and national Swedish food labelling regulations. The consumers’ reading and understanding of the obligatory information on the labels were described, and the results were, when possible, discussed in relation to the following framework:

READ BY PARENTS
AWARENESS OF THE LABEL PART
BACKGROUND KNOWLEDGE
IMPORTANCE TO PARENTS
SALIENCE

The text analytical category of SALIENCE was discussed in the context of the consumer study because it was argued that obligatory elements that are perceived
as important and that are frequently read by the consumers should be salient on the labels.

191.2. Label production process
According to EC-legislation and national Swedish Baby-food labelling regulations, some features are obligatory on the analysed baby food labels, and some features are forbidden. The obligatory features are:

(a) Place of origin if otherwise misleading
(b) List of ingredients
(c) Nutritional table
(d) Storage instructions
(e) Preparation instructions
(f) Best-before-date
(g) Recommended age for the baby
(h) Name of the product
(i) Information on the superiority of breast feeding (only infant formula)
(j) Notice on the suitability for infants from birth when they are not being breast fed (only infant formula)
(k) Warning of inappropriate preparation (only infant formula)
(l) Information on specialised personnel advice before the product is given to the baby (only infant formula)
(m) Presence or absence of gluten if the recommended age is under 6 months (in practice only baby porridge)

Of the forbidden features, the non-idealisation regulation for infant formula labels was considered to be most important. Infant formula labels must not include pictures of infants, nor in any other way idealise the use of the product.

According to representatives of the Swedish National Food Administration the regulations for the baby food labels are usually obeyed by the producers, and the National Food Administration has confidence in the two producers, Semper and Findus.

The interviews with the producers and their ad agencies showed that a large proportion of the label texts were written by the producers’ marketing directors themselves and not by professional copy writers. Sometimes the ad agencies’ copy writers made some final adjustments to the texts.

The ad agencies were primarily concerned with the overall design of the labels. Different strategies were applied to the different product categories. The infant formula labels were basically regarded as informative by the ad agencies, while more commercial and persuasive strategies were used for the gruel and baby porridge labels. One example is that there are often large pictures of babies, or pictures of the prepared baby food, on the gruel and baby porridge labels, which are never found on the infant formula labels. This is of course also due to the fact the those types of pictures are forbidden on the infant formula labels.

The nutritionist, who worked at the National Food Administration, considered the list of ingredients to be the most important item on the labels. This information is very important to people who have babies with allergies or babies with special dietary requirements. She also found the information on gluten on the cereals to
be important. It was stressed that both the presence and absence of gluten has to be mentioned. To make the nutritional table more useful the RDA (Recommended Daily Allowance) should, according to the nutritionist, be mentioned. A formulation such as “One portion of this product gives the baby X % of its daily need, at the age of X months” would be appropriate.

To summarise, a number of factors affect the text on, and design of, the labels. The legislation states that certain information has to be on the labels, and that other information is forbidden. The producers want the products to sell well and the labels are therefore, to various extents, given a commercial design. Finally there are, from a medical point of view, nutritional and dietary requirements that the products have to fulfil. This information also has to be accessible on the labels.

201.3. Labels
From an accessibility point of view it was concluded that the preparation instructions are salient and placed in top position on the back of the packages on almost all of the labels. On the Findus porridges they are located on the left side, which makes the instructions less salient than on those on the other packages. The important list of ingredients is not salient on any of the labels; it has a small type face and it is not contrastive in any way. The nutritional tables gain some salience because they have the shape of a table, but the typeface is still small.

There were some vague or ambiguous words on the labels. One example is “ättemperatur” (‘eating temperature’) that is not always defined on the labels. Another problematic word is “osockrad” (‘no added sugar’) which is not the same as “sockerfri” (‘sugar free’). “Osockrad” means, instead, that the product can contain, for example, fruit sugar from the fruit in the product. It should be mentioned that the Swedish word “osockrad” is less semantically transparent than the English phrase “no added sugar” and therefore probably more confusing. On some labels the use of conjunctions when explaining the sugar content is also confusing, as in “Den är osockrad och innehåller bara de naturliga sockerarterna från mjöl och mjölk.” (‘It has no added sugar and contains only the natural sugars from flour and milk.’)

The grammar of the labels was generally found to be simple and unproblematic. There are a few vague formulations, such as “En portion Semper Äpple-Pärongröt med mjölk innehåller i princip alla näringsämnen och mineraler som små barn behöver.” (‘A portion of Semper Apple-Pear Porridge with milk contains in principle all the nutritious substances and minerals that small children need.’) It is not clear whether the porridge is nutritious enough to constitute the only food for the baby.

In a few sentences on the infant formula labels the use of impersonal constructions and nominalisations could impede upon the accessibility.

The commercial aspects of the labels were also made explicit through the label analysis. Emotionally loaded pictures of babies or babies with parents were salient on the porridge labels and on the gruel labels, and they were always located either on the front or on the back of the packages, and usually in central position. The name of the producer and the commercial name of the product were salient on the front of all the labels, infant formula labels included. In the rest of the
label texts, it was found that a majority of the references to the product on the infant formula labels were made through using the commercial name of the product, either alone or in combination with the name of the producer (e.g. Semper BabyPlus” is used instead of “modersmjölksersättning” ['infant formula']). The use of the commercial name of the product was not quite as common on the gruel and porridge labels, so in this aspect the infant formula labels could perhaps be regarded as more commercial.

The gruel and porridge labels tended to be more commercialised than the infant formula labels in the use of specialised words and intensifiers. These words were most commonly used in a positive context on the gruel and porridge labels, but in a neutral or negative context on the infant formulae. The sales oriented use of emotional words was basically restricted to the gruel and porridge labels; almost no emotional words were found on the infant formula labels.

In general, no major accessibility problems were identified in the label analysis, even if some aspects of the labels could be improved. Another result was that the gruel and porridge labels tended, with a few exceptions, to be more sales oriented than the infant formula labels.

2/1.4. Consumer study
The baby food labels seemed to be read quite frequently by the consumers. 78 % of the respondents to the written questionnaire read parts of the labels often or always while only 22 % seldom or never read the labels. It was noteworthy that the parents that do not have Swedish as their first language tend to be more frequent readers of labels than other parents; 97 % of the parents with a first language other than Swedish often or always read the labels, compared to 74 % of the parents with Swedish as first language.

The parents’ estimated understanding of the labels in general was fairly good, but parents that do not have Swedish as their first language tended to rate their understanding of the labels lower than others. They also gave lower grades to their understanding of the preparation instructions than parents with Swedish as first language.

The obligatory pieces of information on the labels and their relation to the results of the consumer study is summarised in Table 29.
Table Obligatory information on the labels in relation to the results of the consumer study

<table>
<thead>
<tr>
<th>Obligatory information</th>
<th>READ BY PARENTS</th>
<th>AWARENESS OF THE LABEL PART</th>
<th>BACKGROUND KNOWLEDGE</th>
<th>IMPORTANCE TO PARENTS</th>
<th>SALIENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Place of origin if otherwise misleading</td>
<td>(-)</td>
<td></td>
<td></td>
<td></td>
<td>(+ &amp; -)</td>
</tr>
<tr>
<td>List of ingredients</td>
<td>(+)</td>
<td>(+)</td>
<td>(-?)</td>
<td>(+)</td>
<td>(-)</td>
</tr>
<tr>
<td>Nutritional table</td>
<td>(+?)</td>
<td>(+)</td>
<td>(-?)</td>
<td>(+)</td>
<td>(+)</td>
</tr>
<tr>
<td>Storage instructions</td>
<td>(+)</td>
<td></td>
<td></td>
<td>(-)</td>
<td></td>
</tr>
<tr>
<td>Preparation instructions &amp; feeding guide</td>
<td>(+)</td>
<td>(+)</td>
<td>(+?)</td>
<td>(+)</td>
<td>(+)</td>
</tr>
<tr>
<td>Best-before-date</td>
<td>(+)</td>
<td></td>
<td>(+)</td>
<td></td>
<td>(-)</td>
</tr>
<tr>
<td>Recommended age</td>
<td>(+)</td>
<td>(+)</td>
<td></td>
<td>(+)</td>
<td></td>
</tr>
<tr>
<td>Name of the product</td>
<td>(+)</td>
<td></td>
<td></td>
<td>(+)</td>
<td></td>
</tr>
<tr>
<td>Superiority of breast feeding</td>
<td>(+?)</td>
<td></td>
<td></td>
<td></td>
<td>(-)</td>
</tr>
<tr>
<td>Suitable for infants from birth when they are not being breast fed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(-)</td>
</tr>
<tr>
<td>Warning of inappropriate preparation</td>
<td>(+?)</td>
<td></td>
<td>(+)</td>
<td></td>
<td>(+ &amp; -)</td>
</tr>
<tr>
<td>Specialised personnel advice</td>
<td>(+?)</td>
<td></td>
<td></td>
<td>(+)</td>
<td></td>
</tr>
<tr>
<td>Presence or absence of gluten if the recommended age is under 6 months</td>
<td>(+ &amp; -)</td>
<td>(+)</td>
<td></td>
<td>(+ &amp; -)</td>
<td></td>
</tr>
</tbody>
</table>

It can be concluded from Table 29 that the items that are definitely read by the consumers are the list of ingredients, storage instructions, preparation instructions and feeding guide, best-before-date, recommended age for the baby, and the name of the product. All these items have been assigned a (+) value for READ BY PARENTS. Out of these pieces of information, only the preparation instructions and feeding guide, the recommended age, and the name of the product have salient positions on the packages. Another result, related to reading habits, was that the best-before-date, recommended age, and the name of the product were the pieces of information that were to the largest extent read in the shop, as opposed to being read at home.

The parents tended to find the list of ingredients, nutritional table, preparation instructions and feeding guide, best-before-date, recommended age, and the warning of inappropriate preparation to be important. Thus, most of the information that was frequently read was also considered to be important to the parents, which is not surprising. In the case of the warning of inappropriate preparation, which was found to be important by the parents, it was not possible to decide whether it is read by the consumers or not. However, the consumers
thought that the warnings were relevant and they wanted the consequences of inappropriate preparation to be explicitly mentioned on the labels.

A majority of the obligatory items that were considered to be important by the consumers are also salient on the labels. The exceptions are the list of ingredients and the best-before date that are in most cases not salient.

It was in most cases difficult to assign a value to the category of BACKGROUND KNOWLEDGE. The (+?) value for BACKGROUND KNOWLEDGE concerning the preparation instructions was primarily based on the fact that many parents made inferences when they were asked to read and answer questions concerning the preparation instructions on a gruel label. They said that they would use a feeding bottle if they were to prepare the gruel in a microwave oven, even though there was no mention of which type of cup or bottle to use in the part of the instructions they read.

Many of the interviewees wanted illustrations of the preparation together with the written preparation instructions. This would make the preparation instructions easier to follow.

Information on the presence or absence of gluten on cereals, if the recommended age is under 6 months, was given a (+) value for BACKGROUND KNOWLEDGE. The nutritionist that I interviewed said that there are advantages with introducing gluten at around the age of 4 months and a majority of the respondents seemed to have knowledge of these advantages. For this reason they also had a positive or neutral, rather than negative, attitude towards gluten.

The consumer study further showed that 47% of the respondents to the written questionnaire would first look on the front of the package to find information on the presence or absence of gluten. This is not surprising, because the gluten-free information is always located on the front. A more surprising result was that only 7% would look on the back, where the information on the presence of gluten in a product is usually found. 36% would first look in the list of ingredients for gluten content. This would require some background knowledge of which ingredients contain gluten and which that do not. The word gluten itself is never mentioned in the list of ingredients.

The AWARENESS OF THE LABEL PART category in Table 29 is most interesting for the obligatory information on the superiority of breast feeding. The assigned value is (+?) because most of the parents were aware of this information when they were asked in the in-depth interview. The question mark is inserted because only 5 parents in the in-depth interviews were infant formula users and accordingly answered this question. Worth noticing is that 2 out of the 5 parents that used infant formula claimed to have read that infant formula replaces breast milk although the purpose of the information on the superiority of breast feeding is to communicate that breast milk is always the best food for the baby. These parents probably think of the information that says that infant formula is suitable for infants from birth when they are not being breast fed.

The word “osockrad” (‘no added sugar’) caused problems to a majority of the respondents. Only 44% of the respondents correctly answered that the products labelled “osockrad” could contain sugar, while the rest thought that these products
were sugar free, or answered that they did not know. A larger proportion of the parents with a university degree than parents without such a degree knew that an “osockrad” product can contain sugar. Two thirds of the parents without a degree misinterpreted the information, or did not know what “osockrad” means.

The consumer study showed that the background variables that had an effect on the consumers label reading habits and understanding of the labels were knowledge of Swedish and, in the case with the meaning of “osockrad”, education. The number of children, profession of the parent etc. did not have any significant effect.