

Decision of Technical Board of Appeal 3.4.02 dated 22 March 2006**T 619/02 - 3.4.02**

(Language of the proceedings)

Composition of the board:

Chairman: A. G. Klein

Members: F. J. Narganes-Quijano

B. Müller

Applicant: QUEST INTERNATIONAL B.V.

Headword: Odour selection/QUEST INTERNATIONAL

Article: 52(1), 52(2)(c), 52(3), 54, 56, 57, 64(2) EPC

Keyword: "Methods of odour selection: only mental acts (no) - business methods (no) - technical character (no: methods devoid of technical aspects, non-technical aesthetic selection)" - "Methods of making perfumed product having selected odour: technical character (yes) - inventive step (no: no objective problem of technical nature solved over the prior art)"

Headnote

I. The perceptual processes taking place in the mind of a test person presented with odours in an odour selection test do not constitute mental acts within the meaning of Article 52(2)(c) EPC (point 2.1 of the reasons). Nonetheless, human perception phenomena cannot be qualified as being of a technical nature (point 2.3.2).

II. The prerequisite of technical character inherent to the EPC cannot be considered to be fulfilled by an invention, as claimed, which, although possibly encompassing technical embodiments, also encompasses ways of implementing it that do not qualify as technical (point 2.2).

III. The technical character of an invention is an inherent attribute independent of the actual contribution of the invention to the state of the art and consequently the potential of a claimed method to solve a problem of a technical nature should be discernible from the aspects of the method actually claimed (point 2.6.1).

IV. Neither the fact that the result of a method may be usable in a technical or in an industrial activity, nor the fact that the result may be qualified as being useful, practical or saleable expresses a sufficient condition to establish the technical character of the result of the method or of the method itself (point 2.6.2).

V. If, apart from a possibly commercially promising but purely aesthetic or emotional and therefore technically arbitrary effect, the distinguishing features of an invention over the closest state of the art do not, in the context of the claimed invention, perform any technical function or achieve any technical effect, no specific objective problem of a technical nature can be considered to be solved by the invention (points 4.2.1 and 4.2.2).

Summary of facts and submissions

I. The appellant (applicant) lodged an appeal against the decision of the examining division to refuse European patent application No. 97943057.6 based on the international application No. PCT/GB97/02651 published under the PCT with the publication No. WO 98/13808 and entitled "Odour evaluation method".

Claim 1 according to each of the requests upon which the decision was based was worded as follows:

"A method of odour selection for selecting an odour to match a particular visual or auditory target or priming stimulus, comprising evaluating a number of odour/target combinations by testing a subject by presenting the subject with one or more odours under different conditions, at least some conditions being in the presence of one or more visual or auditory targets or priming stimuli; subsequently testing recognition of said one or more odours by the subject and monitoring implicit odour memory by monitoring speed of response and subject confidence of accuracy of response in the subsequent step of odour recognition; and evaluating the results of implicit memory for odour/target combinations presented to the subject in the first stage of testing; and selecting an odour by selecting the odour/target combination or combinations having the greatest degree of association."

In the decision under appeal the examining division held that the subject-matter of claim 1 was excluded from patentability pursuant to Article 52(2)(c) EPC, and that the claimed invention had no technical character and thus did not constitute an invention within the meaning of Article 52(1) EPC. In support of its findings, the examining division expressed the view that the claimed method involved only mental acts, that the result of the method was used to improve sales of a product by better targeting of consumers and consequently the method effectively amounted to a method of doing business, that the contribution of the method as a whole lay in the field of sales and marketing and the claimed invention did not solve a technical problem, and that the step of measuring the speed of response of the subject was technical but, in accordance with decision T 931/95, did not confer technical character on the claimed method as a whole.

During the examination procedure the examining division also raised objections against the patentability of claims directed to a method of perfuming a product with odours selected by a method as that defined in claim 1 (Article 52(1) EPC).

II. With the statement of grounds of appeal the appellant submitted a new set of claims including a claim 1 identical to claim 1 upon which the decision was based (point I above). The set of claims also included, among others, a dependent claim 5 worded as follows:

"A method according to any one of the preceding claims, wherein a plurality of different subjects are tested, and the results of the tests analysed and combined to give overall test results."

and a claim 7 having the following wording:

"A method of making a perfumed product, comprising mixing with the product one or more odours selected by the method of any one of claims 1 to 5 using the product or other desired attribute as a target."

The appellant requested setting aside of the decision under appeal and the grant of a patent. The appellant also requested oral proceedings on an auxiliary basis.

III. Oral proceedings were appointed by the Board, in accordance with the auxiliary request of the appellant. In a communication pursuant to Article 11(1) of the Rules of Procedure of the Boards of Appeal annexed to the summons to attend oral proceedings, the Board gave a preliminary assessment of the case and expressed its provisional opinion that the set of claims according to the request then on file did not appear to be allowable. The Board noted *inter alia* that claim 1 and dependent claim 5 did not appear to define a technical invention susceptible of being patented within the meaning of Article 52(1) EPC and that claim 7, although defining a technical invention, did not appear to involve an inventive step within the meaning of Article 56 EPC in view of the disclosure of the following prior art documents on file:

A1 : US-A-4762493,

A2 : FR-A-2619511 and

A3 : EP-A-0466236.

IV. In response to the summons to oral proceedings, the appellant submitted by letter dated 21 February 2006 new sets of claims amended according to a main and first to fourth auxiliary requests, and contested the preliminary opinion of the Board in the communication annexed to the summons. The appellant also announced that he would not be represented at the oral proceedings, and requested a decision on the basis of its written submissions.

Claim 1 of the main request is identical to claim 1 upon which the decision was based (point I above).

Claim 1 according to the first to third auxiliary requests reads as follows [for ease of comparison, departures from the wording of claim 1 according to the main request are indicated by the Board in italics]:

First auxiliary request:

"A method of odour selection for selecting an odour to match a particular visual or auditory target or priming stimulus, comprising evaluating a number of odour/target combinations by testing *a plurality of different subjects* by presenting the *subjects* with one or more odours under different conditions, at least some conditions being in the presence of one or more visual or auditory targets or priming stimuli; subsequently testing recognition of said one or more odours by the *subjects* and monitoring implicit odour memory by monitoring speed of response and subject confidence of accuracy of response in the subsequent step of odour recognition; and evaluating *and combining* the results of implicit memory for odour/target combinations presented to the *subjects* in the first stage of testing *to give overall test results*; and selecting an odour by selecting the odour/target combination or combinations having the greatest degree of association."

Second auxiliary request:

"*A method of making a perfumed product comprising perfuming a product with an odour selected to match the product or other desired attribute as target, the method of odour selection* comprising evaluating a number of odour/target combinations by testing a subject by presenting the subject with one or more odours under different conditions, at least some conditions being in the presence *of the product or other desired attribute*; subsequently testing recognition of said one or more odours by the subject and monitoring implicit odour memory by monitoring speed of response and subject confidence of accuracy of response in the subsequent step of odour recognition; and evaluating the results of implicit memory for odour/target combinations presented to the subject in the first stage of testing; and selecting an odour by selecting the odour/target combination or combinations having the greatest degree of association."

Third auxiliary request:

"*A method of making a perfumed product comprising perfuming a product with an odour selected to match the product or other desired attribute as target, the method of odour selection* comprising evaluating a number of odour/target combinations by testing *a plurality of different subjects* by presenting the *subjects* with one or more odours under different conditions, at least some conditions being in the presence of one or more visual or auditory targets or priming stimuli; subsequently testing recognition of said one or more odours by the *subjects* and monitoring implicit odour memory by monitoring speed of response and subject confidence of accuracy of response in the subsequent step of odour recognition; and evaluating *and combining* the results of implicit memory for odour/target combinations presented to the *subjects* in the first stage of testing *to give overall test results*; and selecting an odour by selecting the odour/target combination or combinations having the greatest degree of association."

Claim 1 of the fourth auxiliary request is identical to claim 1 of the first auxiliary request.

Each of the requests includes further claims referring back to the respective claim 1. The wording of these claims is not relevant to the present decision.

V. Oral proceedings before the Board were held on 22 March 2006 in the absence of the appellant. At the end of the oral proceedings the Board gave its decision.

VI. The arguments submitted by the appellant during the appeal proceedings in support of its requests are essentially the following:

Claim 1 of the main request concerns evaluating combinations of odour and target by monitoring speed of response and subject confidence of accuracy of response to give implicit odour memory data, and using this data to select an odour associated with a particular target. Contrary to the examining division's opinion, the claimed method does not constitute a business method and does not only involve mental acts.

The claimed method has technical character. In particular, as acknowledged by the examining division, the method involves the physical measurement of the speed of response of the subject, which necessarily involves using a time-piece of some kind. This feature alone presupposes the use of technical means and imparts technical character to the claimed invention as a whole, even if the odour/target combination provided by the method is viewed as an aesthetic result. Moreover, technical means (measurement of response time) are used in the selection method for obtaining technical information (response time) which is processed for a technical purpose (to match an odour to a target in a way that enables production of a product with an appropriately matched fragrance). This is sufficient to confer technical character on the selection method as a whole (T 931/95). Methods of producing a perfume that simply smells nice and chemical entities having fragrance properties considered attractive by some standard are generally patentable.

The invention solves a significant and important technical problem, namely how to devise a method of identifying a fragrance or mixture of fragrances which will be more strongly associated to a given target stimulus by a target consumer than a fragrance identified by purely conscious recollection and explicit memory methods. This technical problem requires a technical solution and consequently is not solvable by non-technical means. In addition, according to decision T 833/91, the technical contribution to the art rendering an invention an invention within the meaning of Article 52(1) EPC might lie in the problem underlying and solved by the claimed invention.

The fact that the invention contemplates the use of natural odours and stimuli and the fact that the unit of time in the examples of the application is omitted are not relevant in assessing the technical character of the selection method. Technical character should be determined as a matter of substance and not form.

The result of the selection method is an odour which is more strongly associated with the target stimulus than would be achieved by conscious interrogation of test persons. This result is not necessarily non-technical. The selected odour possesses the inherent ability to appeal to a person on a subconscious level when used in conjunction with the target stimulus. Therefore the effect on the mind of a person exposed to the odour/stimulus cannot easily be considered to be aesthetic because that would require a conscious recognition and/or appreciation. The subject may find the odour aesthetically pleasing but, more importantly, he will find the association with the stimulus striking on a subconscious level which might not be explainable upon conscious interrogation following exposure.

There will be some variability in the results of the method depending on the person selected for testing. Nevertheless, the selection method employs techniques such as suppression and priming, which help to screen out environmental factors, and the reproducibility of the method is surprisingly good given that human test subjects are employed. The method also involves implicit memory, and the results are more reliable and reproducible than would be achieved by conscious interrogation. In any case, the repeatability and reproducibility of the selection method have no bearing on whether the method is technical or not.

A contribution in a field of technology should be broadly construed because the EPC requires the invention to be able to be carried out by a person skilled in the art, not technology. In any case, the invention pertains to technology, namely to perfume selection and design, a field that involves both technical and aesthetic considerations. This is evidenced by the continuous stream of patents relating to perfume design being granted by the EPO. The technical problem addressed in the invention may be solved with psychological expertise; however, the psychologist has done his work in providing the solution, and the invention can then be worked by a perfume scientist, a product formulator or even a technician, but a psychologist may not be necessary to carry out the selection method.

According to the Guidelines for examination C-IV, 4.1, an activity is considered technical if it belongs to the useful or practical arts and does not need to imply the use of a machine or the manufacture of an article. The present inventors have invented something practical and useful, an improved combination of target and odour that is saleable and can be commercialised.

The European Patent Office has already granted a European patent (EP-B-1011438) on the basis of a claim very similar to claim 1 of the main request. The mere fact that in the present case the technical steps are apparently more simple and straightforward and do not require complicated technical equipment does not mean that the method lacks a technical character.

As regards the claimed methods of manufacturing a perfumed product, it is unreasonable and inappropriate to separate technical and non-technical subject-matter for the purpose of evaluating inventive step since it is the combination of all features together which gives the inventive result. The interaction between the features is a significant part of the invention and should be appropriately taken into account when assessing inventive step. It is a simple matter to add a fragrance to a product, but if that fragrance has been selected by the method of the invention, then adding it to the product produces something not previously possible.

Reasons for the decision

1. The appeal complies with the requirements mentioned in Rule 65(1) EPC and is admissible.

2. Main request - Technical character

2.1 Claim 1 of the main request is directed in essence to a perceptual evocation test in which a subject is presented with odours and with a target or priming stimulus of a visual or of an auditory nature, and an odour is selected according to the response of the subject. Thus, claim 1 gives rules or instructions for carrying out a procedure with odours, stimuli and a test person. In the decision under appeal the examining division held that claim 1 involved only mental acts. However, although the test person and also the person(s) in charge of carrying out the method would carry out mental acts while the method is being performed, the method also involves physical activities, i.e. activities in the physical world such as the fact of presenting the test person with odours and stimuli which do not constitute mental acts. In addition, according to the application as published (page 2, line 2 to page 4, third paragraph, and page 5, second paragraph) the selection method relies on the "implicit odour memory" of the test person, i.e. on non-conscious associative recollection of odours as opposed to explicit memory. Consequently, not even the perceptual processes in the mind of the test person constitute mental acts within the meaning of Article 52(2)(c) EPC. Such perceptual processes (emotions, impressions, feelings, etc.) are psychological in nature and relate to - at least to a predetermined degree - subconscious processes that take place in the human mind, in contrast to the abstract nature of mental acts within the meaning of Article 52(2)(c) EPC which - as better emphasised by the French and the German versions of the article which respectively refer to "activités intellectuelles" and to "gedankliche Tätigkeiten" - are primarily based on cognitive, conceptual or intellectual processes conducted by the human mind. Accordingly, the Board cannot follow the examining division's finding that the claimed method only involves instructions for performing mental acts within the meaning of Article 52(2)(c) EPC.

In the decision under appeal the examining division also held that, in view of the intended use of the claimed method in the design and the selection of successful fragrances and in the assessment of how prospective consumers will perceive a fragrance before launching a product (page 1, lines 5 to 23 of the application), the invention was directed to matching the tastes of the public and thus to the design of perfumes for financial gains, and concluded that the claimed method amounted effectively to a method of doing business. Nonetheless, the claimed method includes no single step directed to business or commercial activities *per se* and already for this reason the Board cannot follow the examining division's view in this respect. In addition, commercial success and financial gains are among the ultimate main goals of any patent, and inherent to any patentable invention satisfying the requirements of industrial applicability set forth in Article 57 EPC. The line of argument of the examining division would therefore imply *ad absurdum* that any patentable invention, and in particular any invention satisfying the requirements of Article 57 EPC, would constitute a business method as such and thus would be excluded from patentability pursuant to Article 52(2)(c) and (3) EPC. For these reasons, the Board cannot follow the examining division's conclusion that the claimed method is directed to a method of doing business as such.

Accordingly, the Board concurs with the appellant that the method of claim 1 does not fall within the category of schemes, rules and methods for performing mental acts or doing business expressly excluded from patentability under Article 52(2)(c) and (3) EPC.

2.2 Notwithstanding, the examining division also held that the claimed method does not constitute a technical invention. As has been long accepted (see in this respect decisions T 22/85 (OJ EPO 1990, 12), points 3 and 4 of the reasons, T 931/95 (OJ EPO 2001, 441), points 2 and 6, and T 258/03 (OJ EPO 2004, 575), point 3.1) and undisputed by the appellant, technical character of an invention constitutes a fundamental prerequisite inherent to Article 52 EPC - and formulated as an explicit requirement in Article 52(1) of the revised version of the EPC 2000 (OJ EPO 2003, Special Edition No. 1) which has not yet entered into force. Thus, having technical character constitutes a *conditio sine-qua-non* to be met by an invention susceptible of patent protection under the EPC.

In addition - and independently of the possible conceptual connections between the concept of technical character and the (non-exhaustive) list of exclusions of Article 52(2) EPC - the prerequisite of technical character inherent to the EPC amounts to the exclusion from patent protection of entities, activities, etc. that do not qualify themselves as technical. Accordingly, the prerequisite of technical character cannot be considered to be fulfilled by an invention which, although possibly encompassing technical embodiments, also encompasses ways of implementing it that do not qualify as technical. It follows that an invention is susceptible of patent protection within the meaning of Article 52(1) EPC if, and only if the invention as claimed includes aspects that impart technical character to essentially all ways of performing the invention. An analogous condition applies in fact to the exclusions from patentability under Article 52(2) EPC, as illustrated by decision T 914/02 in which the corresponding Board rejected a claim directed to an invention involving technical considerations and encompassing technical embodiments (point 3 of the reasons) on the grounds that the invention as claimed could also be exclusively performed by purely mental acts excluded from patentability under Article 52(2)(c) EPC (point 2.3 of the reasons). (See also the recent decision T 388/04 (to be published in OJ EPO), point 3 of the reasons.)

It follows from the above considerations that the question to be answered in the present case is whether the method defined in claim 1, on its proper construction, has aspects of a technical nature that would endow essentially all ways of performing the method with technical character, irrespectively of whether the claimed method - or aspects thereof - can be brought into correspondence with the entities and activities listed in, and expressly excluded from patentability under Article 52(2) and (3) EPC. By "aspects" of the method in this context are meant the activity defined by the method (e.g. the sequence of steps of the method, the means or measures required to implement the steps and the processes or phenomena underlying the method, see point 2.3 below), the result of the method (in particular the effect brought about by the method, see point 2.4 below) (T 366/87, point 4.1 of the reasons, last paragraph, and T 258/03, *supra*, point 4.5) and, more fundamentally, the field or fields of human activity involved in the claimed method (see point 2.5 below).

The question formulated above is to be objectively assessed on the basis of the claimed invention, and in particular independently of the prior art, i.e. independently of the contribution of the claimed invention with respect to what was already known at the filing date of the application (T 931/95, *supra*, point 6 of the reasons, and T 258/03, *supra*, points 3.1 to 3.3). In addition, leaving aside the question of which of the particular aspects specified above should be technical as a necessary and/or possibly as a sufficient condition for the claimed invention to have technical character (T 854/90 (OJ EPO 1993, 669), point 2.1 of the reasons, last paragraph), the relevant, minimalist criterion to be applied in the present case is that if no technical aspect at all can be identified in the claimed invention, then no technical character can be attributed to the invention as a whole. This criterion constitutes in fact the underlying principle in decision T 931/95 (*supra*, point 3 of the reasons) considered during the first-instance proceedings and in decision T 258/03 (*supra*, point 4) both concerning the question of whether or not the use of technical means in a method is a sufficient condition to conclude to the technical character of the method.

2.3 The activity and the underlying mechanism

2.3.1 The activity defined by the method of claim 1 does not, on the proper construction of the claim, appear to require means or measures of a technical nature or having a technical function for its implementation.

First, the method involves a human test person, i.e. requires express human intervention. Although technical character of the method cannot be challenged merely on this fact (T 38/86 (OJ EPO 1990, 384), point 12 of the reasons), the fact that the method depends on the response of a human person can definitely not impart *per se* technical character to the method (see also point 2.3.2 below).

Second, the steps and means involved in carrying out the claimed method may be embodied in a technical form but also in a form that cannot be considered as technical. In particular, the method involves the use of odours which are *per se* a perceptual impression resulting from stimulation of the olfactory organ. Although an odour presupposes a material substrate and technical means can certainly be used when presenting the test person with odours, the claim does not require the use of such technical means. In particular, the examples of odours given in the description include "strawberry jam" and "methylated spirits", and also "animal" and "apple" (list of odours on pages 7 and 8 of the description), i.e. they are not limited to manufactured products and even include natural odours. Thus, the claimed step of presenting the test person with odours does not require the use of technical means or necessarily involve technical considerations, and consequently the step cannot be qualified as constituting a measure of a technical nature.

Similar considerations apply to the step of presenting the test person with targets constituted by stimuli. Such targets or stimuli are agents that trigger in the context of the claimed method predetermined – rather unconscious - perceptual processes in the test person and therefore directly influence the response of the test person, and none of the features of the claim on its proper construction presupposes or requires technical means or technical considerations for carrying out the aforementioned step. In particular, the description (page 5, fourth paragraph) specifies priming stimuli such as "a conversation" or "animal sounds" which do not necessarily involve technical means or even require technical considerations at all. Other examples given in the description such as "one or more photographs" or "a film or video sequence" representing "a happy domestic scene" or "a mountain scene" would involve technical means but, by the same token, the claimed method can also be performed by presenting the test person directly with the corresponding natural scenes. In other words, the claimed features relating to the stimuli and targets are not rendered technical by the mere fact that they may be implemented by some technical means if the claim also allows for implementations that are non-technical.

In addition, contrary to the appellant's submissions and to the finding of the examining division, the step of "monitoring speed of response and subject confidence of accuracy of response" does not require the use of technical means or necessarily involve a technical operating procedure, not even technical considerations for its implementation. It cannot be denied that, as submitted by the appellant, the speed of response of the test person can be monitored by technical means for measuring the time of response of the test person, and that the use of such means would even appear appropriate. However, the speed of response of the test person can also be monitored by a direct assessment or evaluation by the person carrying out the method without the use of technical means. It is in fact not unusual in psychological tests that a psychologist monitors the response time of a test person in terms of a qualitative attribute (e.g. "immediate response", "delayed response", and "default" or "no response" in the evaluation of the instinctive response) directly assessed by the psychologist, i.e. without the use of technical means such as a clock. In addition, no disclosure of the application excludes monitoring the speed of response of the test person by a mere qualitative assessment by the person carrying out or controlling the execution of the method. In particular, the description of the application gives examples in which the speed of response is given in numerical values of "timings" (point 4 of example 1 of the description). However, no time unit is even attributed to the values of these timings. The fact that the corresponding numerical values are given in decimals indicate that some technical means might well have been used in the determination of the timings, but does not exclude that they result from some average or statistical assessment which, although in turn possibly indicative of the use of some technical means, does not exclude a non-technical determination (e.g. by a purely mental assessment).

The remaining steps of the method such as "monitoring [...] subject confidence of accuracy of response", "evaluating the results of implicit memory" and "selecting the odour/target combination or combinations having the greatest degree of association" are devoid of technical considerations. In addition, although these steps could be performed by using some technical means, they can also be implemented as pure mental acts by the person carrying out the method and consequently without involving any technical procedure or means.

The further contention of the appellant that the speed of response of the test person constitutes itself technical information cannot be followed by the Board either. Any process, technical or not, involves by definition changes, and the mere assessment of these changes does not necessarily result in information of a technical character. In addition, whether a piece of information qualifies as technical depends generally on the particular context (T 1177/97, point 3 of the reasons). In the context of the claimed invention, however, the speed of response of the test person relates to time-dependent processes that are not technical (see point 2.3.2 below) and no other aspect of the claim would convey a technical attribute to the information relating to the speed of response of the test person. Similar considerations apply to the remaining information won in the intermediate steps of the method such as that resulting from monitoring subject confidence of accuracy of response and from evaluating the results of implicit memory.

In view of the above, the steps, means and measures required to perform the claimed method are not necessarily technical and, in accordance with the criterion set forth in the second paragraph of point 2.2 above, they are not sufficient to confer technical character on the claimed method.

2.3.2 The Board has also considered whether the activity defined by the method involves underlying processes that might endow the claimed method with technical character. As alleged by the appellant, the selection method relies on rather subconscious perceptual associations between odours and stimuli in the implicit odour memory of the test person (page 4, third paragraph and page 5, second and third paragraphs of the description), and therefore on human perception phenomena. Thus, the "mechanism" underlying the selection procedure of the claimed invention leaves the domain of "technicality" and enters the domain of subjectivity inherent to human perception, i.e. of what - at least presently - lacks an objective causal description to the extent proper to mechanisms of a technical nature. This conclusion is not altered by the fact that human perception phenomena may well be governed by complex neurological processes in the human brain that in turn are ultimately governed by chemical and physical processes. The perceptual associations in the human mind, and in particular those underlying the claimed method, generally depend on personal factors (cultural background, gender, age, past experiences, capacity to evoke dormant meanings and emotions, perception subjectivity, etc.) and vary, for the same person, according to the actual circumstances of the moment. Thus, irrespective of the degree of repeatability or reproducibility of the claimed method itself, the mechanism underlying the selection method, i.e. that which is taking place in the mind of the test person, does not belong to the kind of mechanisms that can be reproduced and repeated under the same or analogous conditions to lead consistently to the same or similar results with the degree of objective verification and reliability that is generally attributed to mechanisms of a technical nature.

2.3.3 In view of the above considerations, the Board concludes that the claimed method does not require or necessarily presuppose structural or functional measures or means of a technical nature that would impart a technical character to the method, and that the mechanism underlying the selection procedure of the claimed method is not of a technical nature and cannot endow the claimed method with technical character.

2.4 *The result or effect*

2.4.1 The claim category "methods" (G 2/88 (OJ EPO 1990, 93), point 2.2) refers generally to activities which bring about a change in nature, and commonly involve transforming or processing some form of matter or energy. There is, however, a special subcategory of methods which do not properly result in a transformed physical entity or in a processed form of energy, but – without prejudice of Article 64(2) EPC - only produce information. This is the case of testing, measuring and selection methods - i.e. of so-called working methods (T 378/86 (OJ EPO 1988, 386), point 3.1.7 of the reasons) – and more particularly the case of the claimed odour selection method in which the resulting odour has not been properly processed or transformed, but merely selected from among a series of existent odours. The question arises whether the result of the claimed selection method, i.e. the information that can be attributed to the selected odour, and the corresponding effect, in particular the nature and the content of this information, are sufficient to endow the claimed method with technical character.

The only feature characterising the selected odour over the non-selected odours is the fact that the selected odour has "passed" the selection test defined by the claimed method. However, the Board is unable to identify any technical attribute or technical significance in the fact that the selected odour has passed this selection test. According to the claimed method, the resulting odour is selected on the basis of the response of the test person presented with a series of odours and stimuli, and according to the description of the application the response of the test person reflects associations between odours and stimuli in his implicit memory. Thus, the selection procedure appears to rely only on the perceptual response of a subject presented with the odours and with stimuli, and consequently the sole feature that can be ascribed to the selected odour is a perceptual evocation attribute in relation to a predetermined stimulus, this attribute being of a purely aesthetic nature which - in addition of falling itself within the aspects expressly and explicitly excluded from patentability (Article 52(2)(c) EPC) - is devoid *per se* of technical character. The Board notes in this respect that although the attribute "aesthetic" is normally used as referring to visual appearances and artistic creations, it refers more generally to entities having – as opposed to a technical serving function – an appearance intended to evoke or provoke impressions or to satisfy feeling requirements or taste expectations as apprehended or perceived by the human senses, including the sense of smell. It also follows that the recognition and the appreciation of an aesthetic attribute not only take place at a conscious level as submitted by the appellant, but also involve processes at a subconscious perceptual level. In any case, independently of the actual degree of conscious and of unconscious involvement of the test person in the claimed selection method, the aesthetic evocation attribute that can be assigned to the selected odour, although possibly indicative of consumer taste preferences or expectations and of a promising commercial value, cannot by its very nature be qualified as technical.

In view of the above, the Board concludes that the claimed method relies on no more than the perceptual assessment of odours and stimuli for the purpose of evaluating their aesthetic evocation attributes - or, in the terminology of the application (page 1, lines 8 and 9), their "emotional value" - and since beyond a purely perceptual evocative inducing effect no technical information, i.e. no technical quality or technical significance can be attributed to the selected odour, the result of the claimed method constitutes a non-technical selection. Accordingly, no technical effect is achieved by the claimed method.

2.4.2 The Board concludes that the result or effect brought about by the claimed method cannot be considered to be of a technical nature and, consequently, - although not sufficient itself to conclude that the claimed method lacks technical character, see T 1032/93, point 3 of the reasons – it cannot impart technical character to the claimed method.

2.5 *The field(s) of human activity involved*

2.5.1 It follows from the considerations in points 2.3 and 2.4 above that the claimed method as a whole pertains to fields such as human taste perception, taste marketing search and – as submitted by the appellant – perfume selection. Contrary to the appellant's contention, the claimed invention does not pertain to the field of perfume design since according to the claim an existing odour is selected, but no perfume is properly designed. In addition, unlike the field of perfume design which generally involves both technical and aesthetic considerations, the fields identified above generally involve aesthetic but do not necessarily involve technical considerations and cannot be qualified as technical fields. Thus, since the claimed method does not reveal any aspect involving, or at least presupposing technical considerations in any of the phases of its implementation, the claimed method cannot be considered to pertain to a technical field.

The Board also notes that – as acknowledged in the application, first sentence - the invention relates to "odour evaluation and odour selection" and that the claimed method is primarily addressed not to experts working in perfume design and synthesis such as a perfume chemist or a product formulator – these are rather the possible contractors - but to specialists such as psychologists, experts in the field of consumer taste research, etc., i.e. persons that, at least as far as the present claimed method is concerned, do not require *a priori* any particular expertise in a field of technology to carry out their tasks, and in particular to put into practice, or even to arrive at the claimed invention. The contention of the appellant that the invention may also be worked by scientists or experts in a technical field is not a sufficient standard to conclude that technical skills are needed to perform the invention or that the invention pertains to a technical field. It also follows from the above considerations that any assessment under Articles 52(1), 54 and 56 EPC of novelty and inventive step of the claimed method would have to be based, by its very nature, on a notional skilled person that would not require any technical knowledge and would therefore not constitute a person skilled in the art within the meaning of Article 56 EPC (see T 172/03, points 6 and 7 of the reasons) and on prior art that would have no technical relevance and would therefore not properly constitute state of the art within the meaning of Articles 54 and 56 EPC (see T 172/03, *supra*, points 8 to 10). All these findings represent additional indicia in support of the conclusion above that the claimed method does not pertain to a technical field.

2.5.2 In view of the above and in the absence of any evidence to the contrary, the Board concludes that no field of human activity which - in the present state of progress, development and applicability of scientific knowledge – can be qualified as technical is involved in the claimed method. Thus, the claimed method may enrich some branches of human knowledge, but has no immediate influence or impact on technology (see T 579/88, point 3.1.1 of the reasons, last paragraph).

2.6 *Other aspects alleged by the appellant*

2.6.1 A line of argument developed by the appellant is that the problem solved by the invention is of a technical nature and that therefore, following decision T 833/91 (point 3.1 of the reasons), the invention is technical. The Board, however, is reluctant to follow such an approach. The technical character of an invention is an inherent attribute independent of the actual contribution of the invention to the state of the art (T 931/95, *supra*, point 6 of the reasons, and T 258/03, *supra*, points 3 and 4) and consequently the potential of the claimed method to solve a problem of a technical nature should be discernible from the aspects of the method actually claimed and identified in point 2.2 above, e.g. from the effect(s) immediately brought about by the steps of the claimed method or by the claimed method as a whole. In any case, the Board is unable to recognise any technical aspect or technical consideration in the problem formulated by the appellant (point VI above, fourth paragraph) in terms of the identification of a fragrance more associated to a given stimulus by prospective consumers than a fragrance

identified by purely conscious recollection and explicit memory methods. In particular, neither the fragrances nor the stimuli presuppose technical means or technical measures, and the degree of association between fragrances and stimuli relies, not on technical considerations, but on the perceptual evocation response of prospective target subjects and ultimately on subjective associations in the mind of the subjects.

2.6.2 According to a second line of argument developed by the appellant, the purpose of the claimed method is matching odours and targets in a way that enables production of perfumed products with an appropriately matched fragrance and this purpose is technical. However - unlike the methods defined in the second and the third auxiliary requests, see points 4 and 5 below - the claimed method is not directed to the production of perfumed products or to the purposive use of the selected odour in a technical context. In addition, it cannot be denied that, as contended by the appellant, the information brought about by the claimed method may be used in technical activities, and in particular in the design and in the synthesis of perfumes and cosmetics having the selected odour. Nonetheless, as the effect or result of the claimed method is not technical (point 2.4 above), the use of the information brought about by the claimed method in such technical activities would as a matter of fact not go beyond the mere aesthetic evocation attribute - or, as specified in the introductory part of the description of the application, the "emotional value" - of the selected odour. Accordingly, the mere fact that the claimed method and its result are susceptible of being used in practice in a technical context is not sufficient to impart technical character to the selected odour, let alone to the odour selection method.

The further contention of the appellant that the result of the invention can be used in perfume and cosmetic industry pertains by its very nature to the issue of industrial applicability of the invention within the meaning of Article 57 EPC. Although industrial applicability and technical character of an invention are intimately related to each other (T 854/90, *supra*, point 2.1, third paragraph, and the passage of the Guidelines for examination in the EPO cited by the appellant, Part C, Chapter IV, point 4.1), they are not synonymous and constitute two distinct, non-equivalent requirements under the EPC (T 953/94, point 3.11).

The appellant has also submitted with reference to the aforementioned passage of the Guidelines (C-IV, 4.1) - according to which "'industry' [includes] any physical activity of 'technical character', i.e. an activity which belongs to the useful or practical arts as distinct from the aesthetic arts" - that the claimed invention belongs to the useful or practical arts and that for this reason the claimed invention is technical. However, this passage of the Guidelines relates to the concept of industry in Article 57 EPC and its connection with physical activities having a technical character, and not to the definition of the latter activities. In addition, a technical invention is generally useful and practical within the generic meaning of these terms, but the reverse is not necessarily true, i.e. not every "practical art" and not every entity or activity that is practical or useful is necessarily technical in the patent law sense (see T 388/04, *supra*, point 4 of the reasons). It is noted that in some national patent law systems by "useful" is meant the counterpart of the requirement of industrial applicability set forth in Article 57 EPC (see TRIPS Agreement, Note 5 to Article 27(1)); however, this special meaning of the term does not necessarily convey technical character either for the same reasons put forward in the former paragraph with regard to the potential applicability in industry of the claimed method. Accordingly, considerations of usefulness and practicality are no substitute for, or criteria equivalent to the prerequisite of technical character inherent to the EPC. Similar considerations apply to the appellant's further contention that the result of the method is saleable and can be commercialised.

The Board concludes that neither the fact that the result of the claimed method may be usable in a technical or in an industrial activity, nor the fact that the result may be qualified as being useful, practical or saleable expresses a sufficient condition to establish the technical character of the result of the method or of the method itself.

2.6.3 The appellant's observation that the department of first instance of the EPO has granted a European patent (EP-B-1011438) containing a claim very similar to claim 1 of the present main request is immaterial to the present appeal case. Notwithstanding, it is noted that claim 1 of the granted patent mentioned by the appellant includes features such as "monitoring electrical activity of the brain of the subject" and consequently defines a different invention, i.e. the factual situation was not congruent with that underlying the present case.

2.7 Conclusion

It follows from the above considerations and conclusions that the method defined in claim 1 on its proper construction does not presuppose or require any aspect of a technical nature and that the realm of technology is not entered by the claimed subject-matter. For this reason, no technical character can be attributed to the claimed method as a whole within the meaning set forth in point 2.2 above. Accordingly, the method defined in claim 1 of the

main request does not constitute an invention susceptible of patent protection within the meaning of Article 52(1) EPC.

3. *First auxiliary request - Technical character*

Claim 1 of the first auxiliary request has been amended with regard to claim 1 according to the main request in that the method involves a plurality of subjects, and in that the results of implicit odour memory are evaluated and combined to give overall test results.

Testing a plurality of test persons instead of one single person and selecting the odour according to the combined, overall test results certainly increase the size and the representativity of the test sample and thus improve the statistical significance of the result of the method. However, none of these additional features are of a technical nature or have a technical function and none of them invalidate any of the conclusions reached in point 2 above with regard to claim 1 of the main request. In particular, the additional features may improve the reliability and the degree of repeatability of the method itself, but do not affect the conclusion in point 2.3.2 above that the mechanism underlying the selection method is psychological in nature and intrinsically lacks attributes proper to mechanisms of a technical nature.

Consequently, the invention defined in claim 1 of the first auxiliary request does not constitute an invention susceptible of patent protection within the meaning of Article 52(1) EPC for reasons analogous to those set forth in points 2.2 to 2.7 above with regard to claim 1 of the main request.

4. *Second auxiliary request*

4.1 *Technical character*

Claim 1 of the second auxiliary request defines "a method of making a perfumed product comprising perfuming a product with an odour", the odour being selected following a procedure as defined in claim 1 of the main request discussed in point 2 above and in which the (unperfumed) product itself or alternatively "other desired attribute" is used as target. Thus, the claim is directed to the manufacture of a perfumed product and requires imparting the selected odour to the product, i.e. intrinsically presupposes applying or adding to the product a perfume component having the selected odour, and hence defines a process or activity that is technical by its very nature and pertains to the general technical field of perfumery. For this reason, and independently of the remaining claimed features, the claim defines a technical invention and consequently, subject to the remaining conditions of patentability being fulfilled, a patentable invention within the meaning of Article 52(1) EPC.

4.2 *Inventive step*

Article 52(1) requires, among others, that an invention involves an inventive step, and Article 56 EPC specifies that an invention involves an inventive step if, having regard to the prior art, it is not obvious to a person skilled in the art. The Board considers appropriate to apply the well established problem-solution approach for the assessment of inventive step according to which the combination of all features of the claimed invention is construed as the solution to an objective problem solved by the invention, the objective problem being determined by the effects achieved by those of the features of the invention that are novel over the closest state of the art ("Case Law of the Boards of Appeal", EPO, 4th edition, 2001, chapter I, sections D-2 to D-6). The assessment of inventive step according to the problem-solution approach is fundamentally of a technical nature (T 172/03, *supra*, points 6 to 10 of the reasons) and, accordingly, the presence of an inventive step can only be established on the basis of the technical aspects of both the distinguishing features of, and the effects achieved by the claimed invention over the closest state of the art (T 641/00 (OJ EPO 2003, 352), points 2 to 6 of the reasons).

4.2.1 Methods of making a perfumed product comprising the step of perfuming a product with an odour by means of a perfume component are well known in the art, as exemplified by document A1 (column 2, lines 1 to 18), document A2 (page 1, lines 10 and 11), and document A3 (abstract). The claimed method differs from this closest state of the art in that the odour has been selected following the selection procedure defined in the claim, the selection procedure corresponding to the method defined in claim 1 of the main request. However, as already

concluded in points 2.2 to 2.7 above, neither the selection procedure nor the resulting selected odour are of a technical nature and, in addition, none of them are rendered technical by their use in the context of the technical method defined in the claim (point 2.6.2 above, first paragraph). More particularly, the claimed method implicitly identifies a sub-family of perfume components suitable for perfuming the product and having the selected odour; however, the sole feature characterising this sub-family of perfume components over the generic family of perfume components suitable for perfuming a product as known from the closest state of the art is the non-technical aesthetic evocation attribute associated with - or, in the terminology of the application, the "emotional value" of - the odour selected with the perceptual evocation test devoid itself of any technical functional significance (points 2.3 to 2.7 above); accordingly, the sub-family of perfume components implicitly identified in the claimed invention results from a non-technical selection, i.e. the features characterising the (technically rather heterogeneous) sub-family of perfume components involved in the claimed method are arbitrary from the technical point of view and therefore technically irrelevant.

In view of the above, apart from a possibly commercially promising but purely aesthetic or emotional and therefore technically arbitrary attribute, the distinguishing features of claim 1 over the closest state of the art do not endow the claimed production method nor the resulting perfumed product with any technical attribute or with any technical structural or functional feature from which a technical function or technical effect could be derived. Thus, in the absence of evidence that the distinguishing features of the claimed method, either taken alone or in combination with the remaining features of the claim, would achieve in the context of the claimed method a technical function or technical effect, no objective problem of a technical nature can be considered to be solved by the claimed subject-matter as a whole over the prior art. Consequently, in the absence of any objective technical problem being solved by the claimed invention, no inventive step can be considered to be involved in the claimed method within the meaning of Article 56 EPC.

4.2.2 The line of argument of the appellant that it is unreasonable and inappropriate in the assessment of inventive step to separate technical and non-technical features and that an inventive step resides in the combination and the interaction of all the claimed features fails to persuade the Board. As noted in point 4.2 above and confirmed by the established case law, features of an invention that do not have a technical effect or do not interact with the remaining features of the invention so as to result in a technical functional contribution cannot be considered to contribute to inventive step within the meaning of Article 56 EPC. This is not only the case when – as in the present case - the features themselves do not contribute to the technical character of the invention (T 641/00, *supra*, points 2 to 6 of the reasons, T 258/03, *supra*, point 5, and T 531/03, point 2; see also T 456/90, point 5.8, T 931/95, *supra*, point 8, T 27/97, point 4, T 258/97, points 5 to 7, and T 1121/02, point 2), but also when the features may in principle be qualified as being of a technical nature but do not have any technical function in the context of the claimed invention (see for instance the case of an isolated carbon rod electrode in T 72/95 (point 5.4 of the reasons), of an electrical insulative plastics covering in T 157/97 (points 4.2.2 to 4.2.4), of an iron electrode in T 158/97 (point 2.3), and of an electrical insulator in T 176/97 (point 4.4)). In addition, this is so regardless of whether the features are themselves obvious or not (see the last paragraphs of the passages of decisions T 72/95, T 157/97, T 158/97 and T 176/97 cited above). Thus, the question of whether the odour selection procedure specified in the claimed method constitutes the straightforward application of a conventional psychological model on human perception or, on the contrary, it has been designed according to some novel and better understanding of the underlying human perception phenomena is irrelevant for the assessment of inventive step under Article 56 EPC in so far as no technical function can be attributed to the corresponding features in the context of the claimed subject-matter. The Board also notes that any answer to this question would require an assessment of non-technical knowledge on the basis of a notional specialist in non-technical fields (point 2.5 above) and that this assessment would in any case go beyond the framework of the EPC (T 172/03, *supra*, points 6 to 10 of the reasons).

4.2.3 In view of the above, the Board concludes that the subject-matter of claim 1 does not involve an inventive step within the meaning of Articles 52(1) and 56 EPC.

5. Third auxiliary request - Inventive step

Claim 1 of the third auxiliary request is directed to a method of making a perfumed product as defined in claim 1 of the second auxiliary request and specifies in addition that the selection procedure involves a plurality of subjects and that the results of implicit memory are evaluated and combined to give overall test results. The claimed subject-matter defines a technical invention for reasons analogous to those put forward in point 4.1 above with regard to claim 1 of the second auxiliary request. Nonetheless, none of the additional features mentioned above are of a technical nature or have a technical function (see comments in point 3 above with regard to claim 1 of the first auxiliary request) and, accordingly, the subject-matter of claim 1 of the third auxiliary request does not involve an inventive step within the meaning of Article 56 EPC for reasons analogous to those set forth in point 4.2 above with regard to claim 1 of the second auxiliary request.

6. *Fourth auxiliary request - Technical character*

Claim 1 of the fourth auxiliary request is identical to claim 1 of the first auxiliary request. Accordingly, the claim cannot be considered to define a technical invention within the meaning of Article 52(1) EPC for the same reasons put forward in point 3 above with regard to claim 1 of the first auxiliary request.

7. Having regard to the above considerations and conclusions which in essence were already notified to the appellant with the communication accompanying the summons to oral proceedings, and since the appellant has had due opportunity to comment on the preliminary view expressed by the Board in the communication, the Board concluded during the oral proceedings that none of the requests of the appellant was allowable and consequently decided to dismiss the appeal.

Order

For these reasons it is decided that:

The appeal is dismissed.