

Experimental analysis of behaviour in the European French-speaking area

Marc N. Richelle

Université de Liège, Liège, Belgium

Esteve Freixa i Baqué

Université de Picardie, Amiens, France

Jean-Luc Lambert

Université de Fribourg, Fribourg, Switzerland

Valentino Pomini

Université de Lausanne, Lausanne, Switzerland

The Influence and development of behaviour analysis in French-speaking Europe has been different in the different countries, as can be seen when comparing developments in France and in the French-speaking parts of Belgium and Switzerland. French psychology has shown persistent reluctance towards behaviour analysis, except for a few individuals in a few institutional circles. On the other hand, Belgium has been the main centre from which behaviour analysis has propagated to the French-speaking area as a whole. Territorial specificities both in experimental analysis and in applied behaviour analysis are described and placed in context. In general, French-speaking Europe has not been especially receptive to Skinner's radical analysis of behaviour. Few of Skinner's books have been translated into French, as compared with other major Western languages. In none of the geographical areas being considered was psychology prepared to integrate radical behaviourism, in spite of its having important experimental developments in learning, perception, cognition, and other basic processes. By the time some faint echoes of Skinner's work reached France and its neighbours, cognitivism had already invaded. In spite of the lack of experimental and conceptual developments, applications mainly in behaviour therapy and in special and normal education did take place in all French-speaking countries.

L'influence et le développement de l'analyse comportementale dans l'Europe francophone a été différente dans les différents pays, comme on peut le constater en comparant les développements en France et dans les parties francophones de la Belgique et de la Suisse. La psychologie française a exprimé une réticence persistante par rapport à l'analyse comportementale, à l'exception de quelques individus dans quelques cercles institutionnels. D'autre part, la Belgique a été le centre principal à partir duquel l'analyse comportementale s'est propagée à la région francophone en entier. Les spécificités territoriales, tant dans l'analyse expérimentale que dans l'analyse comportementale appliquée, sont décrites et placées en contexte. En général, l'Europe francophone n'a pas été particulièrement réceptive à l'analyse comportementale radicale de Skinner. Peu des livres de Skinner ont été traduits en français, en comparaison à d'autres langues occidentales principales. Dans aucune des régions géographiques considérées, la psychologie n'a été préparée pour intégrer le behaviourisme radical, malgré les importants développements expérimentaux au niveau de l'apprentissage, de la perception, de la cognition et d'autres processus de base. Lorsque certains faibles échos des travaux de Skinner sont arrivés en France et ses voisins, le cognitivisme avait déjà envahi la place. Malgré le manque de développements expérimental et conceptuel, des applications principalement dans la thérapie comportementale, dans l'éducation normale et spéciale ont bel et bien eu lieu dans tous les pays francophones.

La influencia y el desarrollo del análisis del comportamiento en los países francófonos de Europa han sido diferentes de los desarrollos en otras partes del mundo. Esto puede verse comparando los desarrollos en Francia y en las partes francófonas de Bélgica y Suiza. La psicología francesa ha mostrado una renuencia persistente al análisis del comportamiento, excepto en el caso de unos pocos individuos y unos pocos círculos institucionales. Por otra parte Bélgica ha sido el principal centro desde el cual se ha propagado el análisis del

Correspondence should be addressed to Marc N. Richelle, Professeur émérite de l'Université de Liège, Sart-Doneux, 29, B-5353 Goesnes, Belgium (E-mail: marc.richelle@ulg.ac.be).

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comportamiento al área de los países francófonos como un todo. El artículo describe y coloca en contexto las especificaciones territoriales tanto en el análisis del comportamiento como en el análisis conductual aplicado. En general la Europa de habla francesa no ha sido especialmente receptiva al análisis radical del comportamiento de Skinner. Pocos de los libros de Skinner han sido traducidos al francés, en comparación con los otros idiomas occidentales importantes. En ninguna de las áreas geográficas que estamos considerando, la psicología estaba preparada para integrar el conductismo radical, a pesar de importantes desarrollos en aprendizaje, percepción, cognición y otros procesos básicos. En la época en que algunos débiles ecos de la obra de Skinner llegaron a Francia y a sus países vecinos, el cognitivismo ya había ocupado su lugar. A pesar de la carencia de desarrollos experimentales y conceptuales las aplicaciones, especialmente en terapia del comportamiento y en educación tanto especial como normal, se desarrollaron en todos los países de habla francesa.

INTRODUCTION

A survey of experimental analysis of behaviour (EAB) research and applications in the French-speaking European territories provides a striking example of the fact that psychology, although a scientific and therefore universal field, shows national or regional peculiarities that can be explained to some extent by its local specific history, but also by the persistence of ambiguous attitudes as to the scientific approach to human behaviour.

On the whole, French-speaking Europe has not been especially receptive to Skinner's radical behaviourism, which generated about half a century ago the so-called experimental analysis of behaviour (EAB). One piece of evidence for this is the limited number of Skinner's books that have been translated into French, as compared with other major (and sometimes minor) Western languages. The first two titles offered to French readers were *The Technology of Teaching* (1969/1968) and *Contingencies of Reinforcement* (1971/1969), both published by a Belgian publisher, the first author (Marc N. Richelle) being his scientific adviser for books in psychology. *Beyond Freedom and Dignity* (1971) was published in Paris in 1972 by a big publishing company, but with minimal publicity and few, almost unanimously negative, press reviews; one of them, written by a reputed social psychologist, captured the French intelligentsia feeling in its title "Sommes-nous des rats?" and in his self-satisfaction argument that French people fortunately escaped the influence of what appeared essentially to be stuff for Americans (meaning USA citizens). The same publisher also translated *Enjoy Old Age* (1983), curiously enough with an equal lack of publicity, though that pragmatic small book contains little behaviouristic theorizing. *About Behaviourism* (1974/1979) was published in French by a Swiss publisher in 1974 and it was not until spring 2005 that *Walden Two* (1948/2005b) and *Science and Human Behaviour*

(1956/2005a) were published by a freelance publisher in Paris, after years of efforts and the goodwill of unpaid translators. This sets up the stage for the description that follows of EAB in France and its close neighbours that share the French language.

However, language is not such a unifying factor as to erase differences between France on one hand and French-speaking regions of Switzerland and Belgium on the other. The latter did not share globally the French attitude towards EAB; their respective approaches had their specific features.

EAB can be considered at various levels. One refers to the experimental methods originally developed in Skinner's laboratory, based on operant techniques. These can be put to work to a number of purposes, with little or no reference to theoretical ideas elaborated by Skinner and his followers. At another level, EAB implies such theoretical elaborations, basically a monist conception of (human) behaviour, the rejection of mentalism as explanatory fiction, a selectionist view of the shaping and emergence of new behaviour. At a third level, EAB is essentially a field of applications, to a large extent rooted in the experimental approach characterizing the first level, and to a variable extent sharing the theoretical tenets qualifying the second level (as shown in the compromise between cognitive and behavioural approaches in cognitive-behavioural therapies, a somewhat chimaeric, self-contradictory expression to the view of some radical behaviourists). The terms "applied behaviour analysis" (ABA) will cover hereafter applications in various contexts—education, therapy, management, etc.—related with or inspired by EAB level I or II or both.

THE CASE OF FRANCE

Level 2: EAB as a theoretical position

At first sight, having the legacy of its famous philosophers and scientists of the 18th century,

1 France would appear to be appropriately prepared
to welcome the behaviourist approach to psychol-
ogy at the beginning of the 20th century. In some
sense, it was, and some French psychologists have
5 even claimed primacy of Piéron over Watson. In
fact, the former, in his inaugural lecture at the
Collège de France in 1907 (Piéron, 1908), advo-
cated the view that the subject matter of psy-
chology is behaviour, rather than mental life.
10 His lecture in some way anticipated Watson's
manifesto. However his position was closer to
methodological behaviourism than to radical
behaviourism as Skinner would define it later in
the century. As Parot (1995) showed, Piéron
15 remained basically a dualist, as most French
psychologists of his time and subsequently. The
conception of psychology as the science of beha-
viour (*comportement*) was, at least superficially,
widely accepted in introductory textbooks, but
20 very few of those who shaped French scientific
psychology in the century could be called beha-
viourists. Pierre Naville was the only person with
in-depth knowledge of behaviourism and openly in
favour of its tenets, but he was a philosopher and
25 sociologist, not a psychologist (Freixa i Baqué,
1985; Naville, 1946).

The French reluctance towards behaviourism
did not change in the second half of the century
when Skinner's influence was growing in North
30 America and in many other countries; we have
pointed in the Introduction to the lack of inter-
est on the part of publishers in translating his
books, and the negative response of critics. These
completely missed some major differences in
35 Skinner's ideas as compared with traditional
behaviourist schools of thought, namely the
interest in verbal behaviour, thought, and private
events. In these respects, Skinner's views would
appear closer to Pierre Janet's influential *psycho-*
40 *logie des conduites* (the word *conduite*—also used
by Piaget—being a quasi-equivalent to *comporte-*
ment, but including indirectly observable beha-
viours, which were explicitly taken into account by
Skinner). To sum up, French psychology ignored
45 the theoretical and epistemological contributions
of radical behaviourism, with a few exceptions in
the last quarter of the century, which will be
presented hereafter. It remained, on the whole,
completely closed to EAB second level. Of course,
50 some elements of Skinner's contributions were
part of traditional courses in experimental psy-
chology, under the headings of "Learning and
Conditioning." The field had its experts, such as
Jean-François Le Ny—originally a specialist of
55 Pavlovian psychology—and Christian Georges,
among others; but significantly both they became

1 prominent figures of the cognitivist movement as
soon as it developed.

In the 1980s, a handful of behaviourally
oriented psychologists appeared on the university
stage in France. One was of Catalan origin, E.
5 Freixa i Baqué, who had been deeply influenced
during his studies in Barcelona by two behaviou-
rally oriented teachers, namely Pere Julià and
Ramon Bayés. He worked for some time on his
doctoral research—on a purely psychophysiological
10 topic—in the psychiatry department headed by
P. Pichot in Paris, where behaviour therapy was
beginning to be part of the treatment approaches.
He moved to the University of Lille, first hosted by
15 the psychophysiology laboratory headed by
Vincent Bloch, where he continued to develop his
interests in radical behaviourism. The department
of psychology in Lille was by no means a centre of
Skinnerian studies, but it offered a context
20 favourable to the opening of new avenues by
young people. Such intellectual tolerance was
unusual in those days in French psychology
departments, where the cognitivist movement was
clearly dominant. Lille was an exception, due to
25 individual personalities then responsible for the
development of teaching and research, such as P.
Lecocq, an expert in human memory closer to
cognitive psychology than to radical behaviou-
rism, or Jacqueline Bideaud, a reputed Piagetian.
30 One student of the latter, Jean-Claude Darcheville,
working in developmental psychology, moved
from the Piagetian approach to behaviourism,
and engaged in experimental research using the
operant paradigm on young children. By the
35 same time, Marc Hautekette had started to teach
behaviour modification and to train students in
the practice of behavioural methods, pioneering
what eventually led to the organization of a
specialized degree for professional psychologists,
40 who were soon recognized for their competence,
especially by associations of parents of autistic
children, or child victims of other behavioural
problems. The small initial nucleus expanded by
the training of new Phd's in the field, among
45 whom were Vinca Rivière, Yanic Miossec,
François Tonneau, Michel Sokolowski, Alain
Madelein, Bruno Facon, and Samuel Delepoule.
Some of these moved to other universities, in
France or abroad. Freixa i Baqué himself moved
50 to the University of Picardie in Amiens, start-
ing, with his former student Sokolovski, a second
EAB nucleus in the North of France. He is
presently in charge of the first teaching faci-
lity explicitly labelled as EAB, in a department
55 with a strong psychoanalytic influence. The new
small group organized the fourth European

1 Meeting on the Experimental Analysis of Behaviour in Amiens in 2000 (see below in the section on Belgium).

5 We have described the case of Lille in some details, because it is the first and a unique place on the French university map where EAB could develop and gain some credentials, both in basic research and theory and in applied fields of behaviour modification and therapy. Why was it unique? And why did it happen there only, rather than in some other university? To the first question, the answer is to be found in two factors: one is the dominant wave of cognitivism that has been propagated all over French psychology since the early 1960s, such that behaviourism was proclaimed a blind alley; the other is the dominance of the psychoanalytic approach in the clinical psychology part of French departments. We shall see later to what extent that factor is still crucial today, and is the source of a crisis of unexpected dimensions. To the second question, the answer is also twofold: first, for some local reasons, psychoanalysts had less weight in the Lille department, and second, as already pointed out, the human context was more favourable than elsewhere to the exploration of new alleyways—even if they be of behaviouristic orientation—by young members of the staff. This is not to say that there has not been, on French territory, any individual psychologist interested in the EAB, but in no case have such pioneers seemed to find the conditions that existed in Lille to escape isolation.

35 As well as Freixa i Baqué, and at about the same time, two other young psychologists with a radical behaviourist background, Fanny Muldman and Alexandre Dorna, settled down in Paris, flying from Chile after Pinochet's *coup d'état*. Dorna, a social psychologist, developed a research group in the field of political psychology. Recently, after many efforts, and together with Freixa i Baqué, he was successful in having *Walden Two* and *Science and Human Behaviour* published in Paris.

45 **Level 1: The use of Skinnerian techniques for various laboratory purposes**

50 Operant conditioning techniques were put to work independently of adherence of the user to Skinner's theory of behaviour, just because they were most efficient in a variety of contexts. If we want to trace the history of that aspect of EAB, we shall have to turn to the section on French-speaking Belgium below. From the 1950s on, a number of French researchers took advantage of

1 operant methods, mainly in psychopharmacological and psychophysiological studies with animal subjects. To name but a few: Cardo, in Bordeaux, used them in self-stimulation studies; Simon and his group at the Paris VI medical school, in behavioural pharmacology; Delacour at Institut Marey in Paris, in psychophysiological work. The techniques were also used in sophisticated research on the neurobiology of motor control in monkeys, at the CNRS Institute of neurophysiology, established in Marseille in the mid-1960s and headed by Jacques Paillard. They also became routine in the last decades of the century in many university laboratories at medical school and sciences faculties, as well as in private companies' research centres, especially in the pharmaceutical industry, sometimes hiring behaviourally trained psychologists from abroad. Animal laboratories were few in departments of psychology, so those who used Skinnerian techniques did so on human subjects. A typical case was Viviane Pouthas, then a member of Fraise's laboratory in Paris, who was interested in the psychology of time, an area in which the prominent French experimental psychologist had been a pioneer and had gained international recognition. She engaged in the study of very young children using operant methods. She eventually trained PhDs along the same lines, and they applied these methods expertly, without any commitment to behaviourist theory (Pouthas, 1985, 1995).

35 **Level 3: Applied behaviour analysis**

35 As can be understood from the two preceding sections, applied behaviour analysis in France, with a few exceptions such as Lille, did not derive from theoretical or experimental research inspired by radical behaviourism. It grew mainly from the concern of some psychiatric departments that the array of treatments should be widened. Rejecting the dichotic view of psychiatric treatments, which opposed the psychoanalytic approach and the biological approach, with its high reliance on drugs, some prominent psychiatrists in charge of leading university clinics promoted an eclectic approach. In this they were open to new treatments if these were useful in improving patients' conditions. Two examples, in Paris, were Pierre Pichot at Saint Anna Hospital and Daniel Widlöcher at La Salpêtrière. The latter was an open-minded psychoanalyst, who encouraged his collaborators to engage in new practices as these were made available by various orientations in psychiatry and psychopathology. Pichot had

1 already been pioneering by introducing psycho-
 2 metric techniques for evaluation of personality,
 3 normal and pathological, in the psychiatry depart-
 4 ment; he encouraged a research psychologist in his
 5 group, Mélinée Agathon, familiar with Pavlovian
 6 work, to explore the new behavioural treatments,
 7 in which Pavlovian conditioning merged with
 8 behaviour modification derived from American
 9 behaviourism. She contributed to the training of
 10 young psychiatrists by teaching the principles of
 11 behaviour therapy from the early 1970s. This
 12 seems to have been the origin of behaviour therapy
 13 in France.

14 A French Association of Behaviour Therapy
 15 was founded in 1972 (Agathon, 1982), which
 16 was eventually changed into an association of
 17 cognitivo-behavioural therapy (AFTCC for
 18 *Association Française de Thérapie Cognitivo-
 19 Comportementale*). This followed a general trend
 20 all around the world to reconcile two schools of
 21 thought in the field of application, which had been
 22 (and still are in many cases) opposing each other,
 23 sometimes aggressively, in academic circles. This
 24 might be one case, among others in the history of
 25 psychology, where practitioners confronted with
 26 real-life problems wisely go beyond exacerbated
 27 conflicts of theories. Curiously enough, while
 28 France, as we have seen, was not particularly
 29 prepared to accept the behavioural approach, a
 30 number of both psychiatrists and psychologists
 31 showed interest in the newly created association,
 32 perhaps because of a general need for alternate
 33 and diversified approaches to treatment, based
 34 on a scientific analysis. People like Pichot,
 35 Widlöcher, and Zazzo were members and/or
 36 Presidents. However, the most active centres from
 37 which applied behaviour analysis was to develop
 38 were not in Paris, where it had timidly originated,
 39 but in the provinces. In Lyon, a young psy-
 40 chiatrist, Jean Cottraux, acquired expertise in
 41 cognitivo-behavioural practices, founded a highly
 42 specialized group, and soon became the leading
 43 figure in the field (Cottraux, 1979). He was active
 44 in propagating cognitive-behaviour therapy (CBT)
 45 in psychiatric circles, both through the AFTCC
 46 platform and by participating in professional
 47 meetings for psychiatrists and psychologists at
 48 large. One can estimate at about 1000 the number
 49 of recognized practitioners of CBT. This is a large
 50 number, considering the French context, but it is
 51 small compared with equivalent professional
 52 societies in other European countries of compar-
 53 able size, such as Germany or Spain.

54 In spite of its progresses, the behavioural
 55 approach is far from having gained its place in
 56 the teaching and practice of clinical psychology

1 and psychiatry. As already alluded to, psycho-
 2 analysis is still the dominant school of thought at
 3 the institutional level (although more so in
 4 psychology departments than in psychiatry, where
 5 the tough biological approach has to some extent
 6 counterbalanced Freudian influence), and the
 7 most popularized through the media.

8 At this point, it seems appropriate to provide
 9 the reader with a brief account of recent events
 10 that illustrate the present highly conflicted rela-
 11 tions between cognitivo-behavioural approaches
 12 and psychoanalysis, making France a *unique case*
 13 on the international scene. The special evolution of
 14 psychoanalysis in France should be remembered.
 15 Having received Freudian theories somewhat later
 16 than other countries—including the USA—France
 17 soon developed its original brand of psycho-
 18 analysis, elaborated by Jacques Lacan. He made
 19 his reputation on claiming to restore the true
 20 meaning of Freud's writings, consequently sepa-
 21 rated from the existing society of French psycho-
 22 analysts, and built his enormous success on
 23 hermetic abstruse discourse that would give free
 24 rein to infinite games of interpretation. Looked at
 25 from outside, such success appears rather strange
 26 in a culture that defines itself by the clarity of ideas
 27 and style, inherited from Montaigne, Voltaire,
 28 Diderot, Montesquieu, and many others. Not the
 29 whole world has been receptive to Lacan's
 30 message: For reasons we leave to historians to
 31 explain, it found an echo in Argentina, and
 32 some audience in the USA post-modern circles,
 33 affiliated with humanities departments rather than
 34 psychological or medical sciences. His superficial
 35 misuse of tough sciences such as mathematics
 36 and physics, just to impress, has been brilliantly
 37 denounced by Sokal and Bricmont (1997).
 38 However, Lacan, who was never offered a position
 39 in a French university, managed to attract many
 40 devotees and to exert unexpected influence on
 41 clinical psychology and psychiatry. His son-in-law,
 42 Jacques Alain Miller, has taken over the propaga-
 43 tion of his ideas in an even more militant style. He
 44 is the central figure in the following story. To
 45 make it clear, the reader should know that in
 46 France, the title of psychologist, designating a
 47 profession, is protected by the law, like the title of
 48 medical doctor, and requires defined conditions
 49 in terms of university training and degrees. It is
 50 not the case of the title "psychotherapist," which
 51 anyone can advertise on his/her door. In fact,
 52 many individuals who do not fulfil the require-
 53 ments for practising psychology or medicine are
 54 practising one or another form of the numerous
 55 kinds of psychotherapies now available on the
 56 market.

1 Recently, a Ministry of Health, having to
 consider funding of psychotherapeutic treatments
 by the health security system, ordered a study on
 comparative outcomes of various kinds of psy-
 5 chotherapies from the prestigious National
 Medical Research Institute (INSERM), while a
 project of law was submitted to the parliament
 aiming at defining the conditions (in terms of
 university degrees) to practise psychotherapy. The
 10 INSERM report, based on a survey of about 1000
 studies evaluating different kinds of psychothera-
 pies, was released early in 2005. It showed a very
 poor record for psychoanalytic treatments, some-
 what better for family treatment of various
 15 orientations, and much better (yet far from
 perfect!) for cognitive-behavioural approaches.
 This, together with the legal requirements for
 practising, provoked a violent reaction from
 psychoanalytic circles that took on a political
 20 dimension. Some political leaders, including the
 new Minister of Health, now in charge of foreign
 affairs, attended a meeting chaired by Miller, the
 leader of the Lacanian group. The Minister
 declared publicly his adherence to the psycho-
 25 analytic credo, as formulated by Miller, that
 psychological interventions are not amenable to
 any scientific evaluation. He added that the
 INSERM report, although ordered by a former
 member of the government, and paid for, of
 30 course, with public money, was withdrawn from
 the website of the Ministry of Health. A violent
 campaign was organized with the support of the
 media, stigmatizing non-psychoanalytic therapists,
 especially those of the cognitivo-behavioural
 35 orientation, accused of sharing Nazi-like ideology
 at work in the American forces in Guantanamo
 Bay and in Iraq. Here is only one short quotation
 from the arguments propagated by that psycho-
 analytic party: "*Criminal inclinations of the United*
 40 *States are clearly illustrated by what occurred at the*
prison of Abou-Graïb. One must know that tortures,
psychological and physical alike, which have dis-
gusted the whole world are applications of methods
that have a name: these are exactly the behavioural
 45 *methods*" (Miller, 2005).

What is at stake here, of course, is the scientific
 status of psychology applied to human psycholo-
 gical problems, and the right of patients and
 clients to know in advance where they are being
 50 taken to by their therapist. Discarding the use of
 scientific criteria in some areas of psychological
 theory or practice is very much like claiming a
 religious alternate to the theory of biological
 evolution. The Lacanian psychoanalysts with
 whom French scientific psychologists are con-
 55 fronted today might be compared to creationists

challenging scientific biology. They appeal to the
 magical concept of individual freedom and respect
 of the person in order to escape any questioning as
 to the outcomes of their practice, and to maintain
 their power and their economic advantages. 5

EAB IN SUISSE ROMANDE (FRENCH- SPEAKING SWITZERLAND)

There are four universities where psychological
 and educational sciences are taught in French in
 Switzerland: Geneva, Lausanne, and Neuchatel,
 located in French-speaking "cantons" proper, and
 the Catholic University in Freiburg, where teach-
 10 ing is offered in French and in German—the
 population of the canton being distributed
 between the two languages, with dominance for
 German. Geneva has a strong tradition of devel-
 opmental psychology, going back to the founders
 of Institut Rousseau, among whom Claparède and
 15 Bovet had a prominent position and international
 prestige. Piaget was the major figure in the next
 generation, experimental psychology being prac-
 tically identified with his own research pro-
 gramme. His creative genius was also very
 exclusive: Piaget had little inclination to attract
 around him psychologists not sharing his theory
 and methodology. It was no wonder, therefore,
 20 that EAB was not represented in the Faculty of
 Psychology and Education that eventually suc-
 ceeded the Institut Rousseau. Other universities
 developed specialties having little or no place in
 Geneva, but mainly in applied fields such as social
 psychology, work and organization psychology,
 25 etc. They did not show more interest than Geneva
 in having EAB at level 1, involving theoretical and
 laboratory research. One should point also to the
 fact that, except for the efforts made by André Rey
 between 1940 and 1965 in Geneva, with little
 30 institutional support, animal research was not in
 favour in Swiss university departments of psychol-
 ogy. When it was given a (limited) place in
 Geneva, it was in the ethological area. To sum
 up, Suisse romande did not have fertile soil to
 35 grow behaviourist ideas and experiments, at least
 at the institutional level. There might have been a
 few persons interested in Skinner's thinking at an
 individual level. At least two of them can be
 mentioned here: André and Anne-Marie Gonthier-
 40 Werren. They worked for a quarter of a century in
 the field of technology of education, within the
 Skinnerian framework, pioneering in applied
 behaviour analysis, which will be discussed below.
 They have been fighting to have Skinner's book
 45 *Science and Human Behaviour* translated and

1 published. They put a lot of energy, time and
generosity into that project, which finally was
achieved after two decades (Skinner, 1956/2005a).

5 Fortunately, applications of EAB in education,
psychological treatment, and health psychology
developed better than fundamental research,
although they were slow in gaining audience. In
10 a scanning survey of the Swiss scientific literature
for the years 1980–1990, hardly a dozen of papers
were found, mainly in the late '80s, dealing with
ABA. These focused essentially on one of three
domains: (1) behaviour modification in some
15 aspects of psychopathology, initiated by Jean-
Pierre Dauwalder, professor at the University of
Lausanne; (2) school and educational context,
more specifically computer-assisted learning, as a
modern version of programmed instruction, and
20 the use of classroom observation and techniques of
reinforcement; and (3) special education, a field
mainly developed in Freiburg by the group headed
by Lambert.

From then on, applications did develop and
were increasing given institutional attention. As
25 far as behaviour therapies are concerned, one has
to emphasize, here as in most other places, that
they have been associated with cognitive thera-
pies. EAB is now a subject matter of teaching at
various levels of the curricula. In Freiburg, a
30 specific course is devoted to it in the first year of
the BA degree at the Department of Remedial and
Specialized Pedagogy. It is a part, of varying
importance, of courses on learning processes in the
curricula of students in psychology and in educa-
35 tion at the universities of Geneva, Lausanne, and
Freiburg. It is a component in specialized training
in behaviour therapy as offered in the Lausanne
University Institute for Psychotherapy, in the
section of behavioural and cognitive therapies
40 headed by Valentino Pomini. It is included in the
continuous training of psychotherapists at the
Geneva Medical School, Department of
Psychiatry, which delivers a degree (3 years) in
cognitivo-behavioural psychotherapies.

45 As a rule, behavioural and cognitive approaches
have been developing mainly within the psychiatric
institutions in Lausanne and Geneva, and to a
more modest extent in psychiatric institutions in
the cantons of Freiburg, Valais, and Neuchatel. A
50 number of specialized units are active in various
domains such as the treatment of anxiety and
mood problems, of schizophrenia, of addictions
(toxicomania, alcoholism, gambling), as well as
in psychiatric rehabilitation, or treatment of
55 feeding problems, for which cognitivo-behavioural
approaches are well established, if not given
preference. As another evidence of the progress

of the approach, one can mention the recent
1 opening at the Prangins Hospital (the West
Psychiatric Sector) of the first treatment unit
specializing in cognitivo-behavioural treatment,
5 headed by Dominique Page. This is not to say
that other units do not also apply that kind of
treatment; what is significant is that it is the first
explicitly labelled as such, emphasizing the ther-
apeutic practice orientation rather than the patho-
10 logical category of patients to be treated.

An increasing number of day-care psychiatric
units, aiming at rehabilitation of patients in
normal social life, also include cognitivo-beha-
vioural programmes in their therapeutic offerings.

15 Applications to education have equally been
developing in various institutions specializing in
mental retardation, in children and adolescents
with behavioural problems, and in family edu-
cation. Many of these applications are backed
20 by the Department of Remedial Pedagogy at the
University of Freiburg, where practicum training
in behaviour modification is offered. Several
programmes inspired by Lovaas are also applied
to autistic children.

25 Contrasting with the institutional environment,
behavioural approaches are far less in favour
among *private practitioners*, be they psychiatrists
or psychologists. In Lausanne, a medium-sized
city, they can be counted on the fingers of one
30 hand, about the same number as in Freiburg, a
smaller place. Geneva might have a few more.
Behavioural practitioners are clearly outnumbered
by those using other approaches, such as psycho-
analysis.

35 Three professional associations are currently
active in French-speaking Switzerland. One is the
Swiss Association for Cognitive Therapy, the
second the Swiss Society for Behavioural and
Cognitive Therapy, and the third the French-
40 Speaking International Interdisciplinary Asso-
ciation for Training and Research in Behavioural
and Cognitive Therapy. The first two, in spite of
their different labels, do indeed cover the same
domain, largely defined as behavioural and
45 cognitive therapies. Most of their members are
medical doctors and psychologists, grouped
together in the first case, or distributed in two
sections as in the second.

50 All three associations organize seminars and
workshops, complementing the teaching offered in
universities, and the first two have established
collaboration with universities—Geneva for the
first, Lausanne and Freiburg for the second—in
55 the implementation of courses towards specialized
certificates and diplomas. It can be concluded that
in the last few years training in applied analysis of

behaviour has been seriously strengthened in Suisse romande (French-speaking Switzerland) and the times are gone when those persons wanting to receive training in the area had to go to Lyon to obtain the diploma organized there by Jean Cottraux. All the training programmes briefly described above attract a number of motivated persons. They obviously meet a demand from physicians and psychologists as well as from nurses and other people taking part in mental health programmes.

EAB IN FRENCH-SPEAKING BELGIUM

Belgium is a small country, but complex because of its linguistic problems, which eventually resulted in 1980 in a federalist structure, with some consequences on university and scientific affairs. The following account is limited to the French-speaking part of Belgium, and should not be extrapolated to the Flemish-speaking part, where the development of EAB has been somewhat different (for a survey of psychology in Belgium, see Richelle, Janssen, & Brédart, 1992). As in Switzerland, the common language has naturally favoured close relations with French psychology, although it has not eliminated the specific features of French-speaking Belgian psychology, as derived from different university traditions, shaped by different influences, and not constrained by such administrative and cultural centralization as is the case in France. One could say that within a small territory, the psychological landscape was more diversified. Although teaching of and research in psychology had been developed from the end of the 19th century, especially at the University of Louvain (a Flemish city where the French-speaking Catholic University was then located), the expansion of the field took place after the Second World War. Because of the individuals in charge of experimental psychology, each of the three universities, Brussels, Louvain, and Liège, would develop its own style and orientation with respect to main areas of research and theoretical emphasis. In Brussels, Paul Bertelson, who had been trained in the UK at the Broadbent laboratory, worked on reaction times and later developed a research group in cognitive human psychology. In Louvain, Georges Thinès, a former assistant of Michotte, perpetuated his master's interest in perception, but developed studies of animal behaviour along Lorenz's lines. At the University of Liège, Marc Richelle, who trained in Geneva and at Harvard, and was an unusual hybrid of

Piaget and Skinner, started an operant laboratory in 1959, hosted by the pharmacology department at the Medical School. Operant chambers were homemade, and the control circuits were built after the model then in use at Skinner's laboratory, from electromechanical relays wired onto the external face as needed for running the schedules of reinforcement. Presumably, these were the first operant conditioning chambers on the European continent (maybe including the UK and Ireland). As a return for the hospitality of pharmacologists, research was partly devoted to behavioural pharmacology in animals (the story of the beginnings of the Liège laboratory and of related behavioural research in psychopharmacology has been told in Richelle, 1991). The laboratory was soon integrated into a newly created psychology department and became the core of the Chair of Experimental Psychology, where all psychology students had to take their practicum, taking part in one of the research projects being run at that time. Most of these projects involved EAB *stricto sensu* using animal subjects; others were genuine approaches to problems not traditionally considered by behaviour analysts in Anglo-Saxon countries, and still others were outside the Skinnerian framework, as Richelle made a point of not limiting the perspective of his students to one exclusive approach.

In the first category, behavioural pharmacology studies continued, using mainly schedules involving temporal regulations of behaviour (such as fixed interval, or differential reinforcement of low rates of responding). From the early 1960s, behavioural time in its own right became the major and most permanent theme of operant research. Helga Lejeune devoted her career to time estimation and timing behaviour and is an internationally reputed expert in the field; she contributed a number of original findings and theoretical elaborations, especially on cross-species and cross-schedule comparisons (Lejeune, Richelle, & Wearden, in press; Richelle & Lejeune, 1980). Engaged in time studies also, Françoise Macar moved soon after her Masters degree to the CNRS neurophysiology laboratory in Marseille—headed by the French psychophysicologist Jacques Paillard—where she continued along the same tracks, using human subjects. Both have maintained collaboration, joined by Pouthas, in Paris (see above). A third line of research in the 1970s is worth mentioning: The attempt to replicate Neal Miller's experiments on operant control of visceral responses, with the purpose of applying the technique to explore psychosomatic problems. A member of the staff, Ovide Fontaine, a

1 psychiatrist, had been attracted by the techniques
 developed in Miller's laboratory, which he visited.
 His work was, unfortunately, doomed to failure,
 as Miller himself had to admit his incapacity to
 5 replicate his own results (giving the scientific
 community an exceptional example of intellectual
 honesty by publishing a paper on the issue;
 Dworkin & Miller, 1986). Fontaine then concen-
 10 trated on his second field of interest, the develop-
 ment of behaviour therapy, which will be discussed
 below. A fourth line of research, closely related to
 the issue of selectionism as a major tenet of radical
 behaviourism, was aimed at exploring behavioural
 15 variability as the source of novel behaviour and
 creative production. Experiments on animals and
 humans were carried out and several theoretical
 papers published (Boulanger, 1990; Richelle, 1987,
 1992, 1995; Richelle & Botson, 1974).

20 In the second category, two domains of research
 should be mentioned that exemplify cross-fertiliza-
 tion between approaches traditionally kept separ-
 ate. One is the use of Skinnerian methodology,
 especially progressive errorless learning, in the
 study of cognitive development as described by
 25 Piaget. This research was initiated by Claude
 Botson and run by her and Michèle Deliége in a
 series of original experiments, which showed how
 mastery of concepts and logical relations in
 development could be boosted to some extent by
 30 adequate learning conditions, but to some extent
 only, as some crucial acquisitions in Piaget's
 description appeared to be strongly dependent
 upon developmental constraints (Botson & Deliége,
 1975). The second domain was innovative in
 35 merging EAB and the ethological approach to
 animal behaviour. A close collaboration with a
 colleague in ethology, Jean-Claude Ruwet (psy-
 chology students had to take an introductory
 course in ethology in their second year), was put to
 40 concrete form in joint seminars, the organization
 of a small international symposium (Richelle &
 Ruwet, 1972), and research putting together
 methods and hypotheses from both fields. The
 best of this collaboration has been a study by a
 45 master student on hoarding in the Syrian hamster,
 using operant conditioning in a semi-natural
 environment, with recording 24 hours per day
 over a period of several months and systematic
 observation of natural behaviour. For reasons
 50 explained in Richelle (1991), the study remained
 unpublished. A third domain is worth mention-
 ing here, although it resulted more in theoretical
 than experimental contributions, i.e., psycholin-
 55 guistics. They bore upon the relations between
 Skinner's analysis of verbal behaviour and
 linguistic approaches, especially Chomsky's theory

(Richelle, 1972, 1993a, b). Anecdotally, it should
 be mentioned here that the first seminar on
 generative grammar ever held in French-
 speaking Europe, freely organized by Richelle
 and Nicolas Ruwet, took place, for local rea-
 5 sons, in the operant animal laboratory. Ruwet
 had been a student of Chomsky, and had just
 obtained his PhD with a remarkable thesis on
 generative grammar, as it was formulated at that
 time. 10

15 In the third category, one can mention research
 in visual perception, led by Roger Genicot, or
 much later—from the early 1980s—in musical
 perception, launched by Irène Delège in collabora-
 tion with the Music Conservatory in Liège. Her
 dynamism eventually led her to found the
 European Society for Cognitive Sciences and
 Music (ESCOM), to start a new journal in sciences
 of music, and to attract several international
 20 meetings in the field to Liège. It might seem rather
 curious to some external behaviour analysts that a
 laboratory with a behaviourist orientation would
 host and support cognitivist psychologists. It was
 the philosophy of the laboratory to welcome
 25 people who had a project, and allow them full
 freedom to develop it.

30 Although the laboratory was essentially devoted
 to *experimental work*, some advanced students and
 researchers became interested in applications.
 Behaviour therapy became the main field of O.
 Fontaine, who founded the Belgian Association
 for Behaviour Therapy, and was active in the
 creation of the European Society; he contri-
 buted to developing collaborations with clini-
 35 cians in various specialties at the Medical
 Faculty (Fontaine, 1979; Fontaine, Cottraux, &
 Ladouceur, 1984). Jean-Luc Lambert, Xavier
 Seron, and Martial Van Der Linden acquired
 expertise in behaviour modification (Seron,
 Lambert, & Van Der Linden, 1977). Lambert
 40 specialized in mental retardation and since 1980
 has been professor at the University of Freiburg,
 in Switzerland (see above). The other two became
 reputed neuropsychologists, Seron leading a
 group in Louvain-la-Neuve, and Van der Linden
 45 one in Liège, and later in Geneva. As neuro-
 psychology was a branch of psychology that
 had developed for some years in the cognitive
 orientation, none of these practitioners would
 identify himself with EAB, although behaviour
 50 modification methods are integrated in prac-
 tices towards the re-education of brain-damaged
 patients.

55 Richelle and his group undoubtedly formed
 the main centre of EAB in French-speaking
 Europe, and the point of origin of the diffusion

of Skinner's work and thinking in the French area. Richelle's book *Le Conditionnement Operant* was published in 1966, followed by *Skinner ou le Péril Behaviouriste* (1978) and a number of papers on various issues, such as verbal behaviour, the relation between Piaget's constructivism and Skinner's theory, EAB, and ethology, reprinted in French in Richelle (1993a), and the substance of which is part of *B. F. Skinner: A Reappraisal* (Richelle, 1993b). The first three books of Skinner published in French were translated by Richelle, as mentioned in the Introduction. The Liège laboratory organized the first two European Meetings on the Experimental Analysis of Behaviour (EMEAB) in 1983 and 1988. Skinner was present at the first of these meetings, attended by more than 300 participants, and delivered an invited lecture entitled "The Evolution of Behaviour" (see Lowe, Richelle, Blackman, & Bradshaw, 1985). The 1988 meeting was no less successful and, as the first, was an encounter between behaviour analysts from Europe and other continents and psychologists or other scientists working with different approaches on the topics selected, such as the psychology of time, reasoning, language, and behavioural medicine (see Blackman & Lejeune, 1990). The third EMAB took place in Dublin in 1997, and the fourth in French-speaking Europe again, in Amiens in 2000.

One has to say that Liège is no longer the EAB centre it had been for more than three decades. Shortly after Richelle retired in 1995, the label of the "experimental psychology" laboratory changed to "cognitive psychology," the new generation having adopted other epistemological frames of reference.

At the level of applied analysis of behaviour, behavioural therapy in French-speaking Belgium developed largely better than in France, but not as well as in the Flemish part of Belgium, where psychoanalysis was less dominant and where clinical psychologists were more open to Anglo-Saxon influences. Besides the decisive impulse given by Fontaine from Liège, at the Catholic University of Louvain, a stronghold of Freud, Lacan, and Szondi disciples, two psychoanalysts questioned the exclusivity of the psychoanalytic stance. Winfrid Huber wrote his Doctors thesis on the comparative study of psychoanalytic vs behavioural hypotheses on therapeutic processes in the treatment of phobias (Huber, 1967). He soon introduced information on behaviour therapies into his teaching of clinical psychology and psychological treatments (Huber, 1987). Jacques Van Rillaer made a complete break with psychoanalysis and became a champion of behaviour

therapies and of the demystification of Freudian claims to superiority in theory and treatment efficiency (Van Rillaer, 1981). At the University of Mons-Hainaut, Ghislain Magerotte introduced behaviour modification in the field of special education. On the whole, as in most other places, the behaviour therapy label was changed to cognitivo-behavioural therapy. This now has its place, varying in extent from one university to the other, in the *teaching and training* of clinical psychology everywhere and in the *practice* of an increasing number of practitioners. The behavioural approach has also been increasingly adopted in *special education* for physically or mentally handicapped children, or more widely in *general education*. We cannot possibly mention here all individuals or teams that make use, more or less intensively, of EAB principles in their educational or clinical practice. Let us limit ourselves to one example, probably unique in its style in French-speaking countries: the Institute for Child and Family Development established in Auvclais by Christian Lalière.

CONCLUSION

This survey of EAB in French-speaking Europe is admittedly far from complete. In the time allocated, the authors could not possibly enquire into all the historical details and other ramifications. They apologize for omissions of persons or groups that were deserving of mention. It is hoped that, as it is, this paper provides a reasonably accurate picture of the EAB movement in the territories bounded by their common language, but distinct in their receptiveness—or lack of receptiveness—to the last important phase of American behaviourism. The picture can be characterized briefly in the following points.

1. In none of the three geographical areas being considered could psychology be said to be prepared to integrate radical behaviourism, for reasons linked to the past—while everyone would pay lip-service to the definition of psychology as the science of behaviour, few were willing to endorse the implications of behaviourism, not to speak of radical behaviourism; or to the present—by the time some faint echoes of Skinner's work reached France and its neighbours, cognitivism had already invaded the place. Many endorsed Chomsky's peremptory judgment on *Verbal Behaviour* and took this as a pretext to dispense with reading Skinner's original work for themselves.

- 1 2. Although in all three areas, some laboratories
adopted the operant techniques that were
especially appropriate in their research,
usually in animal studies in psychopharma-
5 cology, psychophysiology, and the like, inter-
est in the theoretical aspects of radical
behaviourism was quite limited. The few
exceptions, notably in Liège, and later in
Lille, were the result of the peculiar trajectory
10 of individuals who did work at the propaga-
tion of Skinner's ideas.
3. On the contrary, *applications*, mainly in
behaviour therapy and in special and normal
education, did develop in all French-speaking
15 countries or regions, at different times and
rates, from the 1970s on. On the whole,
Belgium was first, followed by France and
then Switzerland. In France, progress was
confronted with the reactions from psycho-
20 analytic circles, which became highly polem-
ical and conflictual. This was especially so in
the last 2 years, when psychoanalysts felt
threatened by legal dispositions aimed at
controlling the formation of all psychothera-
25 pists and by scientific reports questioning
the efficiency of psychoanalytic treatment.
Although some polemics occurred in Belgium
and Switzerland as well, they remained more
urbane and never reached the violent tone
30 that has characterized the French situation.
4. To the question: How is it that applications,
especially to treatment, had so much more
success than the theory from which they were
derived? A partial answer is: Because behav-
35 ioural approaches have merged with cogni-
tive approaches, which have, so to speak,
exorcized them. Another answer would go
like this: Practitioners are pragmatic people,
and if they observe that two kinds of therapy
40 seem complementary rather than opposite,
they see no sense in rejecting one in favour of
the other; they use both. Would people in
practice have gone beyond theoretical
debates, and reconciled behaviourism and
45 cognitivism? Who knows?

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