

Editorial

JACQUES MEHLER
SUSANA FRANCK

It was almost by mistake that we noticed some months ago that *Cognition* was ten years old. And with journals as with children, growing has both the advantages of experience and the dangers of stultification. Thus, once we had resigned ourselves to the fact that we actually were coming of age, we had to fend off aging and stiffening structures. As a result, two decisions were rapidly taken. The first, and more administrative of the two, was to increase the journal's periodicity from one to two volumes per year. The second, and more creative, was to ask several colleagues to write a few pages about their work and how they looked on it given the state of cognitive psychology as a whole, and what they thought developments in the discipline would be like in the coming years. These two editorial decisions can in some ways be looked on as controversial and a few comments seem therefore to be in order.

We only decided to expand into two volumes per year after a great deal of hesitation. Indeed, although the number of journals in the domain has increased over the last ten years, we are not convinced that the quality of the work in the area has met the promise it displayed a decade ago. Undeniably, considerable progress has been made on some formal fronts both in linguistics and AI. In cognitive psychology, however, progress is less obvious. A number of new paradigms have become accepted working tools and some new fields have opened up. But in contrast with, say, molecular biology over the last twenty or thirty years, one certainly does not get the impression that any revolution has occurred in our field. Experiments have perhaps increased in sophistication and a few optimists no doubt believe that some major development is just around the corner but in the meantime little has really changed. Thus, as journal editors waiting for the supreme breakthrough we had the choice of becoming very tough minded and selective in order to keep the number of pages published in *Cognition* down to a minimum or the option of increasing the size of the journal while preserving its quality. The decision was not an easy one and it is precisely because no major new discovery has as yet shaken the field that it seemed wise to settle for the second course of action. Indeed, the exploratory nature of our work makes diversity enormous, areas of interest numerous and polemics plentiful. For the time being, then, since all the material swept up by the cognitive tidal wave could be of potential interest to the field as a whole,

we decided to increase the number of printed pages available in the journal in the hopes of broadening its scope and attracting more interesting contributions while still continuing to reflect the best of the field and, to some extent, shaping its form and content.

Indeed, *Cognition* has in some ways altered the nature of the material published in the domain. Longer manuscripts have found an audience that previously was not available, theoretical viewpoints that the more traditional journals found unacceptable have found a natural niche. At the same time, a number of experimental reports that did not meet any of the routinely prescribed formal constraints prescribed by this or that journal have made it into print purely on the basis of their intrinsic interest. Last, but not least, *Cognition* has devoted valuable space to contributions concerned with the ways in which psychological research is carried out and investigations in areas where the repercussions on society could be great. We believe that we have done our best to encourage colleagues to express themselves on issues of interest to them and the community as a whole, ranging from the problems of academic life to the concern that all those involved in basic research should attach to the applications of their own work. Unfortunately, although our initial efforts at generating interesting contributions on the ideological context in which science is produced were successful and a number of thought provoking articles published, manuscripts of this kind dwindled rapidly and soon became extinct. In discussing this phenomenon with colleagues, we found reactions fell into two categories. For some, the disappearance of this type of contribution merely reflects the passing of a period of collective neurosis dominated by the largely personal problems of a vociferous minority. For others, the subject has been beaten into the ground and psychologists would do better to go back to work and leave the burden of worrying about these formerly all-absorbing issues to future generations. For our part, we wonder if some of the change cannot be attributed to the fact that the journal has grown up at a time when competition for jobs, grants etc. has become increasingly fierce thus rendering considerations not directly related to the evolution of one's career obsolete or merely the lot of a happy few who can afford the leisure to think about them. Be that as it may, we remain convinced that the kind of papers we initially tried to include in this journal remain valid today. Only the future will tell whether we cognitive psychologists, occupying only a small segment of the academic community, can afford to preoccupy ourselves with issues that are larger than the problems addressed in our own minor areas of research. This being said, the problems that concern cognitive psychologists have such an obvious social impact that both our work and its consequences must, at times, be addressed within a context far broader than that of our own particular experimentation.

If the disappearance of the more ideologically oriented part of the journal has been a source of some disappointment to us, we must confess frustration with the uniformity of the submissions we tend to receive. Of course, a journal like *Cognition* is in a way the hostage of progress in scientific research while at the same time (providing it is successful) it influences the orientation and form of the work produced. Indeed, to a large extent, contributions shape a field and journals perpetuate the image practitioners have of their area. The process is self-fulfilling, stifling to any attempts at originality and very difficult to break at any level. It was largely in discussing this problem that we hit upon the second way of celebrating *Cognition's* tenth anniversary.

As we mentioned earlier, our second decadal move was to ask several colleagues for statements about their work, the future of their endeavors, their evaluation of the field and their views on how their goals might be attained. Although our invitation letter was admittedly very vague, the aim should have been quite clear. We were inviting authors to say what they pleased without any constraints other than a page limitation. They were to have the opportunity to make whatever statement they wanted in ways that are not habitually available to scientists.

It was our hope that the outcome of this unusual enterprise would somehow reflect the state of cognitive psychology today as well as its potential for development in the next decade or so. Unfortunately, as we all know this kind of futurology is largely based on myths. Indeed if we could actually predict today what is going to happen in basic research in ten years time we could save a lot of energy and take a short cut up to the investigations that should be taking place then. But many of us do sit on committees or participate in administration of one kind or another and are frequently asked to provide opinions, often vague or even thoroughly confused ones, as to what the shape of the field will be in the coming years. Thus, in spite of the inherent difficulty in prospective thinking we are all called on to engage in it at one time or another. Indeed, computers are a useful case in point. When they were first introduced, all the psychological laboratories in the richer countries where the discipline was more or less well represented were rapidly equipped with them. Whether we care to admit it or not, computer fever overtook us before we had had the time to think about where it might carry us. In fact, although we all agree that computers are excellent support tools, our degree of confidence in their usefulness at furthering advances in the field in significant ways is by no means homogeneous. Indeed some would say that

...nowadays we are becoming aware that the infinite potential of electronic psychology was a senseless proposition because the potential was mainly on the surface

behavioral level rather than at the conceptual level. This latter level became more and more impoverished in the midst of programs and simulations generated by the new wave. And as a matter of fact, many psychologists became aware that it was as easy as it was useless to produce new procedures and simulations if they did not stem from a true theoretical psychological insight. Thus it is even possible to claim that computers have drawn psychologists away from a truly perspective stance where technical, behavioral and theoretical aspects are considered in conjunction with social and ideological ones'.

Interestingly enough, this last sentence is a gloss from L. Berio (1981) that we have translated rather freely taking the liberty of modifying by substituting the word psychology for music and behavior for acoustics.

Whether or not we agree with the above citation our point in using it is that there are currently a number of people making similar statements in areas as diverse as urbanism, sociology, psychology or the arts. Thus, to some extent, it must be true that the pressures exerted by the environment are homogeneously strong regardless of what the aims or needs of the various fields may be. This kind of determinism is, of course, to be expected but whether it should be accepted without any critical evaluation is another matter. In a field like ours, the only way in which we can understand whether developments should be attributed to fashion incorporating outside pressures rather than to true theoretical developments is through discussion between the people participating in the elaboration of the discipline. For this reason, we thought that it would be exciting to have a number of investigators of varying ages speculate about the field and its future.

Indeed, a number of trends do emerge from the manuscripts appearing in this special issue. There are those who are convinced that information processing and artificial intelligence hold the keys to the future; those who believe that there is no future for the field as a whole and those who believe that cognitive science will only come of age when it has developed a more descriptive approach displaying greater concern for ecological parameters. Finally, there are those who have refused to engage in any speculation whatsoever and have opted to remain close to the data they have gathered within the paradigm they have developed. But regardless of the nature of the contributions we have received, one feeling pervades our reading of all the articles and that is that the field is in rapid expansion without any homogeneity of approach. Interestingly enough, moreover, we get the impression that there is some correlation between narrowness of perspective and the difficulties encountered by the younger writers in gaining recognition by the community. If this is true, the trend may well reflect a situation that we already addressed in an Editorial written five years ago (see *Cognition*, 4, 1).

It is obvious that although computers are going to play an increasingly important role, the neurosciences will also be occupying a dominant position. In the first place we stand to inherit a number of the tools and procedures used in disciplines related to the neurosciences which will allow us to carry out our empirical tests in more carefully controlled situations. In the second, the neurosciences will hopefully yield some explanatory devices that will help us to account for growth and evolution of cognitive capacities. Indeed there are few, if any, terms in cognitive psychology to account for the dynamics of the behavior noted and it appears probable that any causal account of development will be couched in terms that are more biological than psychological. Nonetheless, we will also have to resist the temptation of reducing phenomena to neurological terms that should only be accounted for in terms of processing. Luckily, a number of authors already seem aware of the dangers that reductionism holds for psychology. Last, but by no means least, cognitive psychology will have to remain open to considerations about the well-being of mankind and the needs of society as a whole. However, as is the case in all burgeoning areas the options must be left open to incorporate the unexpected developments that none of us can predict for the coming years.

Finally, we should like to close this statement by referring to the journal itself and the key role that has been played by our referees over the years. We should like to thank all the present and past members of the Editorial Board as well as the many anonymous reviewers who have generously provided us with their opinions and helped colleagues with their comments and advice. The time and energy you have invested in *Cognition* and your implication in the life of this journal are what keep it going. It is our hope that we will be able to continue to call on you in the future and that our circle of active collaborators will increase steadily. In addition, we hope that the readers of *Cognition* will also help us to make the publication develop into an instrument that over and above representing the most excellent work in the field, will help our research and thinking to gain in perspective.

References

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