

Editorial

Assembling articles to make up an issue of a journal, as I have just done, reminds me that an editor is always tempted to hope that the whole he has put together is somehow greater than the sum of its parts. I'm not sure the journal's readers, or its authors, see the situation in quite the same way. For them, the "whole", if it exists in any sense at all, is probably the set of related articles from whatever sources that they have read recently, or the set of articles they have written and will go on to write. The journal, in their eyes, may be like a package containing — if they are lucky — a couple of items of value wrapped in old newsprint. Keeping this in mind stops an editor from indulging in splendid fantasies about the impact of his efforts.

An editor may want to ease into existence a journal with certain concerns, a certain style or tone, a certain level of discourse. (The inside front and back covers of this issue tell you something about what this editor has in mind. The contents of the issue tell you some more.) But he has to attempt to do this within constraints, since a journal, whoever initiates it, is a social enterprise. Most obviously it needs people to write for it and a larger number of people to buy it. At this level the continued production of a journal is an exercise in management.

A journal is a product: a product — or perhaps a by-product — of people talking to people. Like face-to-face talk, printed talk takes many forms and serves many functions. It can entertain, inform, reassure, tell lies, beat about the bush, play on feelings, inflame, and do any of the other things that people use words for. Like face-to-face talk, too, printed talk is received in context, and the context may determine that the words tell much more or much less than they say.

Words, spoken words and printed words, are so much a part of our social furniture, so pervasive, so everyday, that we don't take them seriously most of the time. A professional writer knows that words are hard to master: they insist on being opaque when he wants to be clear, and blunt when he wants to be subtle; they are — worst of all — glued

to the page, stuck at a particular point of time. He can rarely expect from his readers a comparable effort of re-animation, of re-creation.

Words can be offered seriously and can also be taken seriously. They can be worked at by a reader, re-read and thought about, until they yield up meanings that may have escaped a first scrutiny. At this level the production of a journal may also be an educational enterprise.

My hope that this journal may grow into one that learns along with its writers and its readers is my justification for introducing a new journal into a crowded field. "Print, print, and still more print. Who needs it?", as several people have said to me, using other words. The dangers are worth risking, I think. A new journal makes no demands by itself: only people do that, on themselves or on others. And although life, including the life of classrooms, will no doubt go on much the same with or without *For the Learning of Mathematics*, well-chosen words can trigger awarenesses and stimulate reflections and give experience to those sensitive to them. If any who are reading this sigh at the prospect of yet more to read, I'd say they have missed the point. I want to do something to serve the interests of those who have to learn mathematics. I hope some who share that desire may find *For the Learning of Mathematics* a journal which it is in their own interest to read.

In this issue, Jack Easley picks up Joseph Agassi's use of the word "agenda", but that is hardly a coincidence as both delivered their papers at the same meeting. Other convergences are more coincidental; the words "magic" and "metaphor" seem to resonate gently across articles. Geometry is given a good airing and will be returned to subsequently. I hope some readers will be moved to enter into dialogues about these and other matters, either by writing directly to the authors, or by sending comments for publication to me so that the discussion can continue in the open.

About Geometry

DICK TAHTA

In the nineteenth century, biologists tried to account for the diversity of species by supposing that the gaps between species contained the departed ghosts of the "unfit". For some, it was as if the surviving species were defined and brought into being by the death of other species. The metaphor was clearly linear, relying on some sort of geometric image of a line, not unlike that invoked by mathematicians whose rational numbers are interspersed by a "denser" collection of irrationals. Such a picture was inevitably very crude and has had to be considerably refined. But however sophisticated they have become,

biologists, in common with scientists in general, continue to rely on some kind of geometric imagery.

The original scientific enterprise of quantifying the world was undoubtedly highly successful but it has become increasingly clear that a qualitative grasp is more fundamental and more urgently required. René Thom, the mathematician who has in recent years offered biologists a powerful new tool for the study of changes in form, has emphasised that some kind of intuitive geometric imagery is of primary importance. [1]

I am certain that the human mind would not be fully