Notes Toward a Theory of Attention

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> Attention is the one budget no productivity system can grow. This short book takes that seriously: it treats attention as a measurable, conserved quantity, sketches a minimal model of how it is allocated, and draws out a few consequences for design, reading, and the shape of a working day.

1. The Problem of Attention

William James put it plainly more than a century ago: everyone knows what attention is (James, 1890). We feel it as the act of taking possession of one object out of several possible — a withdrawal from some things in order to deal effectively with others.

The trouble is that this everyday certainty dissolves the moment we try to *budget* it. We speak of "paying" attention, "spending" time, of tasks that are "cheap" or "expensive", and yet we plan our days as though attention were free and infinitely divisible. It is neither.

Treat it instead as an economist would treat any scarce resource: something with a fixed supply over a given interval, a price that rises with demand, and opportunity costs that are paid whether or not we notice them. The rest of this book follows that one move to a few of its conclusions — beginning, in the next chapter, with a model small enough to write down.

References

James, W. (1890). *The Principles of Psychology* .

2. A Simple Model

Let A be the total attention available in some interval — a morning, say — and suppose it is divided among n tasks, with a_i the share given to task i. The conservation claim from the previous chapter is just the constraint in Equation 1: the shares sum to the whole, no more and no less.

$$\sum_{i=1}^{n} a_i = A \tag{1}$$

So far this is only bookkeeping. The content arrives when we ask what each share *buys*. A reasonable first guess is that the value returned by a task has diminishing returns in the attention spent on it — the tenth minute on a problem is worth less than the first. Write the return on task i as in Equation 2, with v_i a task-specific weight and the square root standing in for "diminishing":

$$r_i = v_i \sqrt{a_i} \tag{2}$$

Maximising total return $\sum_i r_i$ subject to the budget in Equation 1 gives a tidy result: attention should be spread so that the *marginal* return is equal across tasks. Pour everything into one task and you leave easy gains on the table elsewhere; spread it too thin and nothing clears the threshold of usefulness. The optimum is neither monomania nor scatter — a conclusion we will lean on in the final chapter.

References

3. What Follows

If attention is conserved and its returns diminish, a few practical consequences follow that are worth stating outright.

The first is about *information*, not attention itself. A wealth of information creates a poverty of attention (Simon, 1971): every new feed, notification, and tab is a claim on a fixed budget, and the claims now vastly outnumber what the budget can honour. Figure 1 shows the shape of the problem — the supply line is flat while the demand for it climbs without limit.

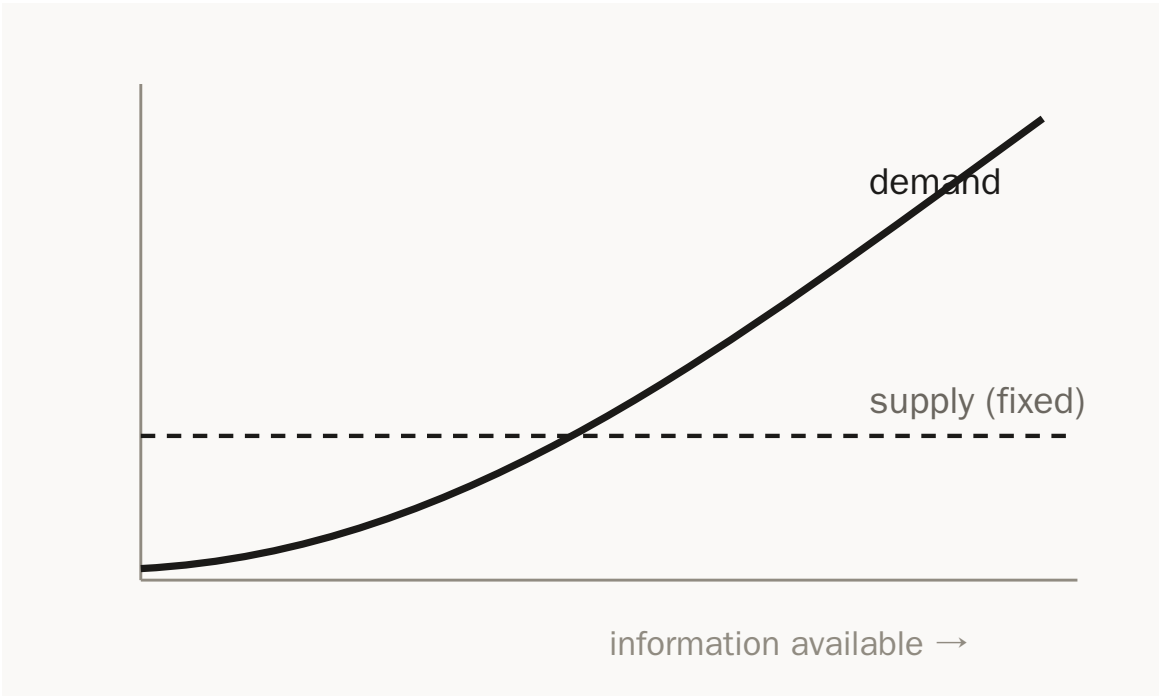

Figure 1. Attention supply is fixed while demands on it rise without bound.

The second consequence is about *design*. Table 1 gathers a few interventions and what each one does to the budget. Note that they are not equivalent: some add supply at the margin, others simply reduce the number of claims.

Table 1. A few interventions and how each acts on the attention budget.

Intervention	Acts on	Effect
Batching alike work	The price	Fewer costly context switches
Removing a feed	The demand	One fewer standing claim on the budget
A single daily plan	The allocation	Equalises marginal return across tasks

The third consequence is personal, and the model from the previous chapter already implies it: because the optimum is neither monomania nor scatter, a good day is one that holds a small number of tasks at the point where their marginal returns are roughly equal — and then, crucially, defends that arrangement against the day's standing tide of claims.

None of this is a productivity system. It is closer to a constraint: spend the one budget you cannot grow as though you could not grow it.

References

Simon, H. A. (1971). Designing Organizations for an Information-Rich World. In M. Greenberger (Ed.), *Computers, Communications, and the Public Interest* (pp. 37–72). Johns Hopkins Press.