



# THE ROYAL BANK OF CANADA MONTHLY LETTER

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## *On Thinking Things Through*

THE NEED FOR THINKING is generally admitted, but there is no unanimity about how to do it.

Thinking is not something confined to philosophers or scholars. We all need the power to think if we are to adapt to our environment and to live the sort of life we wish to live.

Before breaking new ground in business or personal life we have to ask questions, look into things, and reach conclusions. The asking of questions has this big additional benefit: it staves off mindset and gives us a continuing interest in living.

So valuable to us is the ability to reach wise decisions, and so expensive and dangerous is error, that the most ordinary prudence requires that we embrace any opportunity to advance our skill in thinking through to proper judgments.

The purpose of thinking through is to improve an existing situation by getting to know more about it so as to have a guide to action. The person who does not occupy his mind constructively is putting up with self-imposed ignorance, and will suffer for it.

Many people do not wish to go on long intellectual journeys. They prefer to stay close to familiar, simple, established things. But even they can benefit by some organization of their reasoning processes.

### *Problems and dilemmas*

The highest types of thinking are directed toward attaining some desired end by solving problems. The first thing to do is to find out that a problem exists, and the extent of it. It may seem to some people foolish that they should go looking for problems, but a good problem presents an opportunity for highly gratifying action. It opens doors we had not noticed were there.

While problems do not always stand out as starkly as "To be or not to be", the essential ingredient of a problem is that it presents us with alternatives. Its solution comes by the application of clear-eyed analysis, straight thinking, common sense, and frankness with yourself.

When you come upon a complex problem, break it down. Simplify it, and explore the fundamentals on

which action must be based. Ask a question about it that can be answered "yes" or "no". Then develop that answer by another question. Every step is simple, and the final step leads you to a clear-cut judgment.

When you find yourself upon the horns of a dilemma, you need to appraise opposing alternatives realistically. Jean Buridan, a fourteenth century philosopher of some distinction, was author of an often-quoted illustration. A certain jackass, which had an exceptional intelligence quotient, was placed midway between two equally attractive bundles of hay, and he died of starvation because he could not find reason to choose between them.

Charles Dickens tells in *Pickwick Papers* about "Pickwick's romantic adventure with a middle-aged lady in yellow curl papers" when he entered her hotel room by mistake. "I never met with anything so awful as this," thought poor Mr. Pickwick. "I can't allow things to go on in this way. If I call out, she'll alarm the house; but if I remain here, the consequences will be still more frightful." He was undoubtedly in a dilemma, hidden as he was in the lady's bed, and he formulated it with academic clarity.

One way of dealing with a dilemma is to seize one of the horns, hold it firmly, and examine it. The actuality may be very different from the appearance. Or the proposed alternatives may not be mutually exclusive. If ground is yielded on both sides, then compromise, or conciliation may be the way out. Intelligent compromise is often the evidence of courageous wisdom.

### *Straight thinking*

Thinking is not an end in itself. It has to be for some purpose. It may be directed to the solution of a practical problem, or to the exploration of some phenomenon.

Honesty in thinking is important as a factor in successful living, not merely as a moral obligation. You must eliminate inconsequential and slipshod methods. Otherwise you may set yourself to study Shakespeare and find yourself off on the trail of finding out why he bequeathed his second-best bed to his wife. That is

irrelevant. The important thing to a student of Shakespeare is that he wrote the tragedies and the comedies and the sonnets.

To proceed in your thinking with the best hope of reaching a satisfying conclusion, you should have a plan to guide you. Define your problem or your purpose; determine where you are going to get the necessary facts; do your research and systematize the results; check your progress every once in a while; know when you have enough information to give you the knowledge necessary to a wise decision.

Thinking straight takes on some of the aspects of research, and must follow the same rules. René Descartes gave us several hints in his *Discourse on Method* after telling how he, himself, had taken the "firm and unwavering resolution never in a single instance to fail in observing them." His principles are: (1) The Principle of Evidence: never accept as true anything which we do not clearly know to be such; (2) The Principle of Analysis: divide up problems and difficulties into as many parts as possible; (3) The Principle of Method: conduct our thoughts in order, beginning with the simplest and easiest to know, and proceeding in stages to the most complex knowledge; (4) The Principle of Control: make surveys so wide and reviews so thorough and lists so complete as to be sure that nothing has been omitted.

One of the first problems associated with evidence is the role of cause and effect. No business man is likely to deny the existence of cause and effect. By knowing causes he can often produce the effects he wants and avoid those he does not want.

For our purpose in thinking things through we may take it that cause and effect means that under certain conditions certain things have always happened. This is not always clear-cut. We need to pay attention to the surrounding conditions, because the effect may be a result of the combined influence of many attending factors.

Another point to be considered is that an event may not be an exclusive cause but merely an order of succession in time. A cloud-burst, followed shortly by floods, is certainly to be counted as the cause of an inundation, but what of the antecedent conditions — the saturation of the land by preceding rains, and the human actions in blocking the natural channels of run-off?

### *Accent the positive*

Some people live on the frontier of knowledge but do not part the fog that hides it. Their thoughts float in their minds without sail or ballast, as simple statements, and are not directed so as to move purposefully toward a harbour.

Thinking positively is much more pleasant and rewarding than thinking foggily or negatively. Mere wondering about a thing gets you nowhere. It is merely intellectual vagrancy.

When we think purposefully we usually do so to unearth a fact we need or to increase our knowledge in order to gain control over facts. It is not enough to manipulate things already known. That is ordinary. By thinking creatively and adding new ideas we rearrange and enlarge the stock of things that we know into combinations of value hitherto unknown.

Some people look upon themselves as reaching decisions in a sort of laudable frenzy, using an ecstatic intuition. But inspiration, which is an excellent starter, seldom furnishes enough material to finish the job. We need to follow through, knowing at every turn in the road how far we have progressed.

Evaluation is something to be done as you proceed with your thinking, something to be used as the basis for further thought. It means checking the progress of your thinking up to this point: has it yielded the best results and brought you a reasonably good distance in the right direction?

The pilot of an airplane is constantly asking questions of his instrument panel. Before taking off he has made a flight plan. His instruments tell him if he is on the track, or drifting; if he is too high or too low; if he is keeping proper speed. This is the sort of continuing operation involved in thinking through. The log which the pilot keeps during his flight is his evaluation of his operation up to the time of each entry.

Improvement in your thinking will come through intelligent practice. You will cultivate observation, to get facts; reflection, to arrange past and present experiences into new combinations; reasoning, so as to determine the worth and consequences of what you are doing or planning; and judgment whether to do or not to do, to use or not to use, the resulting finding.

To think through means not only to think thoroughly so as to arrive at a sound conclusion, but to continue thinking until you have exhausted all the possibilities. Hero of Alexandria, mathematician and inventor, used steam about a hundred years B.C. to operate a toy. The world might have had the benefit of steam propulsion during the next sixteen centuries if he had asked himself: "What do I do next? How can we put this steam power to use? Can it do some work?"

We may not be inventors, but life is constantly confronting us with demands that we make choices between this or that, between quitting at this point or continuing to another. As youths we have to decide whether to stay at school or get jobs. As young married couples we have to answer the question "Shall we curtail our expenditures so as to make ends meet, or shall we go into debt?" We may receive much advice, but in the last resort we must make our own decisions.

Here is where Descartes' fourth principle is a guide. Not until all the necessary evidence has been gathered and surveyed can our decision claim to be of real value. Some matters demand exact measurement, and we need the patience to weigh the issue, to suspend judgment until we make sure that we have all the pertinent facts.

## *Questions are needed*

This involves asking questions. The greatest injury we can do ourselves is to remain ignorant of worthwhile knowledge that could be ours for the trouble of asking questions.

Understanding is a state of mind that is brought about by getting satisfactory answers. When you take inventory, you ask questions; when you scan a statement of affairs, you ask questions; when you look into the refrigerator to make up a shopping list, you ask questions.

That asking questions is a practical business tool is evidenced by the issue of a booklet called *One Hundred and Fifty Questions for a Prospective Manufacturer* by the United States Small Business Administration. The first question is: "Have you had sufficient training or experience? Have you protected yourself from your own blind spots?" The last question is: "What plans have you made for your ultimate retirement?"

You need to cultivate an appetite for answers whether in business or personal life. It is out of asking questions, and pausing for the answers, that invention, discovery, philosophical concept and the satisfaction of attaining have been developed. Asking questions is a way to get knowledge that builds self-confidence. If you have asked enough questions about a matter you can discuss it with the authority of detailed knowledge. You have grasped a lot of thread-ends and tied them into a compact knot.

Questioning, of course, must not be allowed to run rampant to the point where it becomes the chief job in your life. It has a purpose. It is important to know when that purpose has been accomplished, and to get on with the job.

Your questions must be directed properly to people able to answer them. As the seventeenth century Spanish writer Balthasar Gracian said: "He is an incorrigible ass who will never listen to any one", but you must discriminate. It is possible to cast a net of questions and catch a lot of information without getting real enlightenment.

The test is: "Does this person know what he is talking about? Can he throw new light on my problem?" No matter how clever he may be in many things, unless the answer is "yes" he is useless to you.

It is reasonable to talk about asking questions of books. Everyone, whatever his interests or needs, should have a library. Paperback books are now available to tell you about almost everything under the sun and beyond it.

## *Facts are vital*

When you ask questions of books or people you get facts, and these are necessary if you are to form a mature idea of your problem or the path you must follow to reach your objective.

Techniques in business, the professions and social

service must be borne up by known facts. Just as the wings of a bird, perfect as they are, are useless without supporting air, so techniques will fall flat unless they are sustained by knowledge. Steep yourself in essential facts before making an important move.

But the mature mind should be more of a factory than a warehouse. Facts are taken in through the senses for processing so that they emerge in different and more useful forms.

You are really thinking when you get ideas *about* facts. It is then that originality enters your life. When you have digested facts you have obtained material upon which your imagination goes to work. You cannot construct anything out of nothing. Edgar Allan Poe, who wrote the highly imaginative poem "The Raven", said this: "Originality is by no means a matter, as some suppose, of impulse or intuition. In general, to be found, it must be elaborately sought."

## *Be thorough*

To think through is to be thorough. The further into a thing you have looked, the less assailable will be your knowledge about it. It is a good idea, when dealing with serious things, to apply the principle that has guided great lawyers: they prepare two cases, that of their client and that of the opponent. Thus they anticipate any tactic used against them: they know both sides of the case.

We need, of course, to choose the right data upon which to develop our thinking. We must have firm facts, not suppositions. We need to brush aside data that are not pertinent to the matter in hand, or our thinking will be cluttered up with irrelevancies.

All the information you pick up must be checked. Every answer to a question implies the property of being right or wrong. Be audacious in reaching out for answers to questions, but then be meticulous in examining them so as to prove their worth and make sure that they fit the case.

The next step in thorough thinking is analysis and synthesis. Originality in thought and competence in making decisions arise from the synthesis of facts and ideas to fit a new situation. You need the ability to take apart and put together.

Analysis separates the parts of any situation, however complicated it may be. Synthesis is the act of the intellect which combines these elements with improvements. There is no use in picking information to pieces unless you do something useful with it.

When you think analytically you are on safe ground. You keep narrowing down each part of the problem so that it is always manageable.

Then you assess the situation. Any attempt at earnest thinking is prompted by some motive for that thinking. The more definite and clear your conception of your purpose, the better it can serve you as a guiding factor. As Wallenstein asks himself in Schiller's drama: "What is thy enterprise? thy aim? thy object? Hast honestly confessed it to thyself?"

In assessing a situation with grave potentiality your thinking should take account of the most dangerous state of affairs that can occur.

When Royal Navy officers were assessing the potential danger of the German battle-ship *Bismarck* upon learning that she had left her berth, they listed four possibilities. The most dangerous was that she might break out into the Atlantic to harrass shipping, and that was the possibility for which the British commander made plans.

After such an assessment you will frame an hypothesis. It may be said that thinking is made up of stating hypotheses and then testing them and interpreting the results. Having an idea or framing an hypothesis is an imaginative exploit, but trying out the hypothesis must be ruthlessly critical.

### *Try a soliloquy*

Many a personal, business and national problem has been thought through to solution in a soliloquy. This is a word picked upon by St. Augustine to describe what goes on in a man's mind when he is debating with himself, asking and answering questions with an issue at stake. Obviously, being a debate, a soliloquy cannot be a monologue in which the same idea is repeated over and over. There must be confrontation with another idea.

When you indulge in a soliloquy directed toward solving a problem or escaping from a dilemma you are in distinguished company. Robert Browning, in his poem "Saul" depicts David in the field recalling vividly his memorable visit to the king, and its implications. Milton, in *Paradise Lost*, gives a soliloquy by Eve, who is thinking things through after the apple episode. This soliloquy is an irresistible apology for her action. Jean Valjean, thinking things through in Victor Hugo's *Les Misérables* debates with himself: "This is what comes to pass, if I denounce myself; and if I do not denounce myself? Let us see, if I do not denounce myself?" Ralph Waldo Emerson thought through to a decision in one of the great crises of his life, and he opened his Journal entry on July 15, 1832 with these words: "The hour of decision." A few weeks later he expanded his soliloquy into his farewell sermon from the pulpit he held in a Boston church. In the year after his conversion, St. Augustine wrote out in the light of his new-found faith a series of questions and answers regarding God and the soul, carried on between himself and his reason.

In such a soliloquy do not be surprised if thinking upsets your complacency. Clear thinking involves seeing unwelcome as well as welcome facts. We must never deny the truth that our reason shows us, even if it makes us blush.

### *Take a wide, clear view*

Once in a while we need to take a wide view, to see how things outside the orbit of our immediate con-

cerns affect us. At the corners of old maps of the world of the fifteenth century are great vague spaces without names, on which the map-maker wrote: "Hic sunt leones" — "Here are lions". There will be, if we allow it, similar obscure and frightening corners in our minds.

To have a limited view, like that of a cart-horse wearing blinkers, is likely to lead us into error. We are losing out by not knowing all our territory and what is in it.

Even if you are quite determined to disbelieve or ignore a thing, it seems on the whole to be satisfying if you know what exactly you are disbelieving or ignoring. It is better to arrive at a state of certainty after a close and critical scrutiny of the evidence than to maintain an inferior kind of certainty by turning a blind eye to evidence we fear may be fatal to our position.

Learning — and particularly learning about what is in the dark corners — is a profoundly happy experience. It is as refreshing to give up some long-cherished but false idea upon having it exposed by our own questioning as it is to change into a new suit.

The increase of knowledge in these days, when it is difficult to tell where the possible ends and the impossible begins, has made many certainties worth questioning. Tradition and prejudices often stand in the way of attainment of truth, and mental laziness leaves us holding old discredited beliefs. Only by keeping receptive minds and using the garnered facts to think things through is it possible for us to know all that it is necessary to know.

### *To think is to learn*

We all have mental pockets where the sediments of old unresolved problems are deposited. Thinking will clean them out and leave room for up-to-date thoughts, capabilities and ambitions.

When you think, you see where others do not. Those who ask questions are the ones who think up more things to do and more ways of doing them. Thinking enables us to test, to build upon, and to expand our knowledge and enlarge the sense of what is possible for us.

Those who inquire into the nature of things give themselves an advantage in this competitive world. It is in your thought processes that you occasionally catch a glimpse of a distant peak which no one else has seen. To develop that thought so as to come nearer to the peak is a grand experience.

When you think a thing through you gain a feeling of accomplishment, of being in command of the situation, of confidence in your judgment, of being closer to happiness. As the learned magician Merlyn told the youthful King Arthur: "The best cure for being sad is to learn something."