Amphibious man

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Man inhabits two realms, that of reality and that of the imagination. The progress of science is a complex negotiation between these two realms, a dialectic in which fact-oriented observations and probability-oriented imagination are inseparably intertwined. But there are many signs that, recently, the natural equilibrium between these two has become destabilized and artifice and imagination have gained the upper hand to a distinctly unhealthy extent. In both science and scholarship we seem to be involved in an increasing and deeply problematic shift from pre-occupation with virtual rather than actual reality.

Humanity lives in two worlds: that of experienced reality and that of the imagination. Sometimes our thoughts and efforts are directed to the realm of what is, i.e. the real world that is the object of our informal and scientific inquiries. But sometimes it is addressed to the realm of what is not, i.e. the imaginary object of our fancies and speculations, of our conjectures and imaginings. Accordingly, we are dual citizens of two realms, the real world of our reality-interactive experience and the thought world of our reality-suspensive imagination. We are constantly involved with both experience and imagination, cognitive interaction with reality and the mind's projection of reality-suspensive conjecture.

Why should we concern ourselves with unreal possibilities at all? For many reasons, including because fictions can be entertaining and instructive – and useful as well as because they enable speculative thought to penetrate to regions where realities do not go. On the negative side, fictions enable us to engage in deceit, but on the positive side they enable us to do planning and contrive precautionary measures through engaging in 'what if' thinking. They also enable us to broaden our understanding by means of thought experiments and the exploration of hypotheses. Fiction can serve us as a source of inspiration and encouragement rendered achievable through the contemplation of possibilities to whose realization we can at least aspire. And not only can ambition and aspiration be enlivened in this way, but also our sympathy and empathy can be engendered

through the imaginative exercise of 'putting ourselves in another person's shoes', be that person real or imaginary.

Virtually every step in the history of human innovation and invention has come about in the wake of someone asking about imaginary possibilities, speculating about what would happen if ..., and reflecting on yet-unrealized and perhaps unrealizable possibilities. Speculation about as-yet non-actual, and often never to be realized, possibilities is a pervasive feature of innovation. The domain of the possible plays a prominent part in our thought about the affairs of nature and of man. Deliberation about alternatives, contingency planning, reasoning from hypotheses and assumptions, and thought-experiments are but a few instances of our far-flung concern with possibility. The rational guidance of human affairs involves a constant recourse to possibilities: we try to guard against them, to prevent them, to bring them to realization, etc, and this speculative endeavour constitutes a significant part of our understanding of man's ways of thought and action.

There is, in fact, a complex but close interrelationship between the two realms of reality and imagination. We cannot effectively separate them, nor manage to live in one without involvement in the other.

The concepts and ideas we employ in forming our view about unactualized possibilities must invariably be taken from our experience of actuality. In this regard, the classical empiricists were right. In constructing our view of the unreal we have to make use of the conceptual materials we base on our experience of the real. The descriptive features we are in a position to attribute to the imaginary are invariably features we know from our experience of the real. The domain of our science fiction is based on the offerings of our science. It is our experience of reality, and reality alone, that is the ultimate source of the materials out of which we shape our conceptions of the merely possible.

On the other hand, our view of reality is itself, in a way, a product of the contemplation of possibilities. Imaginative guesswork is always the starting point for our theorizing. Thought experiments are the starting points of our real experiments. No science of the real can be developed without use of the imagination to engage in 'what if' deliberations.

After all, science is abstract but experience is always concrete: now this, now that. Science deals in generalities, experience in specifics; science in causes, experience in events. And anything that has the least structure of generality about it transcends the limits of actual experience. Our only access to generality is by means of imagination and conjecture: by asking ourselves what general arrangements would effectively yield the specifics at our disposal. Experience delivers episodes, not theories, particulars, not universals. Without forays into the reality-transcending realm of the imagination, supposition, conjecture, or the like, we could not get beyond the specifics of concrete experience. For a fully adequate

understanding of the real we have to situate it against the larger background of the merely possible.

In the end the whole object of scientific method is to establish a smooth coordination between the concrete specifics of experience and the abstract generalities of thought. To paraphrase Kant, imagination without experience is empty, experience without imagination is blind. We have to strive for symbiosis, for optimal collaboration and coordination between the two. And the guiding principle of rational inquiry is ultimately to maximize the range of experience while, at the same time, minimizing the amount of mere conjecture that is needed to realize an adequate account for it.

Overall, however, we can engage in two very different modes of thought and discourse: the realistic, aimed at characterizing how matters actually stand; and the imaginative, aimed at broadening our insight into the realm of possibility.

Here, the issue of priorities comes to the forefront in connection with the uses to which these cognitive resources are put in forming our overall manifold of thought about real actuality and mere possibility. This will, and must, pivot on the question of purpose, of the aims and goals of the enterprise on which we are engaged. For, with scientific inquiry into the world's events and processes, it is experience that is, or should be, in the driver's seat, while in the domain of intellectual artifice and belletristic creation it is imagination and conjecture that is in charge.

Very different principles of priority are operative in these two realms of describing reality and illuminating possibility. The one, inquiry, is actually geared and committed to the prioritization of substantially inert experience where our wishes and preference play little part. The other, intellectual artifice, is possibility-geared and gives free reign to an imagination that is limited only by our wishes and desires. Inquiry is tethered to reality via experience; artifice does what it can to unbind these fetters via the imagination. The specifics of the purposive context make for a crucial difference in approach here. The ground rules of factual and fictional discourse are altogether different, with different aims and objectives in view, to portray experientially discernible reality on the one hand, and to project imaginative possibilities on the other.

In this regard, however, a vast, virtually revolutionary change is unfolding about us in the present era, a change so fundamental that it is no exaggeration to say that *homo sapiens* are now standing at one of the great crossroad of human history. The crux here is the balance between fact and fiction, between actuality and fancy, between natural reality and artificial reality.

Historically, mankind has spent the bulk of its time in an intimate involvement with natural reality. In an earlier, agrarian era, man spent all day from dawn to dusk grappling with nature in the real world. In the 19th century, the more fortunate among mankind may have spent some stolen moments reading a novel.

In most of the 20th century they spent no more than a couple of hours in reading novels, watching television, or viewing a weekly movie. However, by the 21st century, it seems that people are spending much of their time in the realm of artificial reality, not just in recreation but in work life as well. Many is the hour a pilot in training spends in a flight simulator. Many the hour a language learner spends conversing with non-persons in the language laboratory. Many the budding architect who erects his structures not on a building site but on a computer screen. The time-balance between the battlefield and the battle simulator, between fighting and feigning, has shifted drastically for the modern high-tech warrior. Youngsters no longer putter away at a work-bench or a chemistry-set but go on fanciful quests with computer games. And so on.

And so in the present era the boundary between reality and irreality becomes increasingly fuzzy as people become so enmeshed in artifice as to become unable to discern the difference. Innumerable examples indicate that the line between actuality and artifice, between authentic and artificial reality is being increasingly blurred. The tether of fancy to reality is growing increasingly slack. Recent headlines in the American press afford multiple illustrations. We find that a celebrated biographer will write himself into the life of his subject (Edmund Morris on Reagan). We have the Pulitzer Prize-winning history professor who impresses his students with the life experiences he never had (Joseph L. Ellis of Mt. Holyoke College). We have the newspaper reporter who publishes instructive interviews with non-existent subjects, the autobiographer who lays claim to a life he never lived, the author seeking to persuade himself and others of having produced the text he never wrote. It seems that whenever one turns on the contemporary scene, the traditionally emphasized and honoured line of division between reality and irreality is being eroded as the 'reality' people deal with is of their own making.

Even in science, traditionally seen in its defining mission of a rational inquiry into the nature of the real, the same sort of phenomenon can be discerned. With many scientific 'findings' nowadays, it is hard to tell whether the evidential basis on which they rest is the observation of nature or the examination of its purported worlds. Scientific investigation is becoming increasingly detached from nature. We increasingly study matters not by discerning and scrutinizing nature's processes themselves, but only at second hand, by studying the comportment of artificial models that may or may not mirror such processes. Science deals less and less with the behaviour of nature as such than with the behaviour of what are, at best, no more than hopefully faithful models of nature. In this sphere, artifice is coming into the forefront to an extent that throws into question the claims of science to qualify as an *empirical* discipline. The phenomena that concern the scientist are less and less those of actual nature than artefacts of the creative imagination of scientists.

And this sort of thing holds in applied as well as theoretical science. For example, the modern engineer works less with wind tunnels and water tanks then with computer simulations. The processes he or she grapples with are not those of nature but those of the design parameters of computer models. And much the same thing holds with the sort of science-application that offers the promise of policy guidance in economics or demography or social theory. These too are nowadays seldom based on careful observation of how things work 'in the field' amidst the realistic complexities and diversities of actual human practices. Instead, they also are all too often based on dealing with works of artifice, on what are, at most and at best, no more than theory-projected models of social and economic behaviour and processes.

Recourse to reality-surrogates, which makes it difficult to discern the boundary-line between actuality and artifice, is of course nothing new. It was not invented on the afternoon when Orson Welles aired his notorious 'War of the Worlds' radio broadcast on the Mercury Theater of the Air in 1938. People who pass fiction off for fact have, like the poor, ever been with us on the world's stage. But what is new is the massive breadth and depth of this phenomenon.

This amplification has also brought about a change in people's attitudes. As reality-respect becomes increasingly less common, people also adjust to this state of things and lower their expectations in response. When they see the distinction between reality and fiction trampled underfoot they are no longer shocked and appalled. Here, as elsewhere, familiarity breeds acceptance and people come to regard erstwhile abnormality as normal.

In warfare, feints, deceits, and ruses are, and always have been, the normal practice. But, of course, war is an exception to all the rules. Historically in the normal circumstances of everyday life, one's reputation for honesty and truthfulness, for reality-respect in short, was traditionally regarded as something precious. The person unable or unwilling to maintain a firm grasp on the boundary between fact and speculation, reality and irreality, was seen as either a scoundrel or a candidate for the lunatic asylum. Until recently, the idea that this is not a critically important barrier but a road to be crossed at one's convenience would have been rejected with scorn, and dismissed with indignation, rather than accepted as an old-fashioned eccentricity.

Psychologists have traditionally characterized the inability to perceive and maintain a clear separation between the real and the imaginary as a delusional psychosis. They have classed its victims as mentally ill, fit subjects for psychotherapy if not institutionalization. But in this respect there is, unfortunately, an epidemic in progress to the extent that its victims are taking over not just the asylum but the wider world.

Man has always been an amphibian moving between the domains of reality and fiction. Once we developed into *homo sapiens*, our physical life became

amphibious between the world of nature and the world of artifice. And in modern times we have lived a thought life that shuttles increasingly between the realm of actual experience and that of cognitive artifice. But the issue is one of a matter of degree and in this regard there is a profound change of balance is in progress, a tilt where imagination gains ever-increasing prominence over experience. To all appearances, we are in the process of taking a large and very problematic step, embarking on a mysterious journey that carries us ever deeper into the realm of imagination-based artifice. For better or worse, we are, it seems, in the process of turning increasingly from nature-based experience to suppositional conjecture, and in the process are converting ourselves from *homo sapiens* to *homo imaginans* and entering even deeper into a grey no-man's land between fact and fiction, where uncertainty prevails as to our being on one side or the other.

About the Author

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