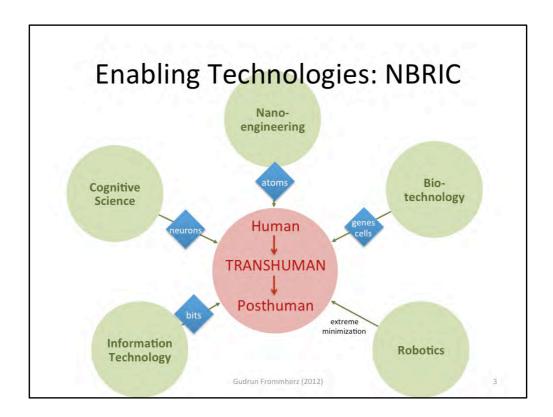
Transhumanist Imagery: Communication as Memes Gudrun Frommherz (2012)



"We stand at a turning point in human evolution. We have cracked the genetic code; translated the Book of Life. We will soon possess the ability to become designers of our own evolution. There will be opposition from those who call for the abandonment of progress in subservience to nature. Let us not turn back now through fear. As humanism freed us from the chains of superstition, let transhumanism free us from our biological chains." Excerpt from Designer Evolution: A Transhumanist Manifesto by Simon Young (2006).



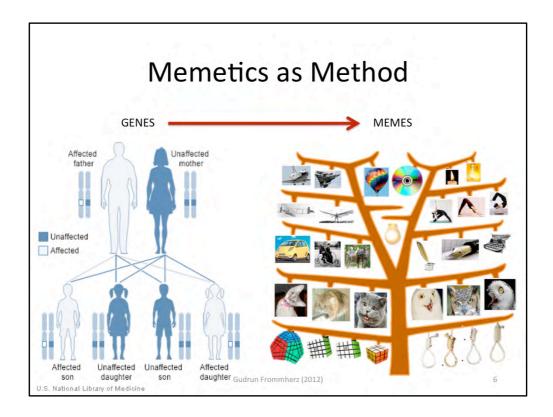
Key themes of transhumanism revolve around evolutionary progression from the archaic human to an increasingly superior being. The evolution to posthumanity is thought to be driven by science and by the application of ever-advanced technologies aiding to overcome ailing, aging, and ultimately death. These technologies largely result from the converging sciences of genetics and informatics, the amalgamation of *superbiology* with cybernetics.



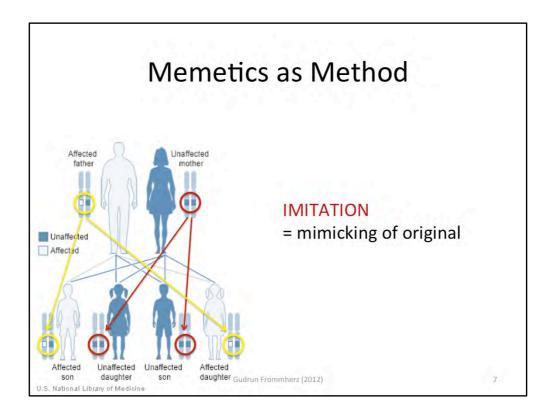
Transhumanist philosophy is strongly anchored in the absolute worldview of modernism. Modernity has taught a science where the inner structure of matter is made up of perpetually smaller units that serve as building blocks to the manifold and intricate workings of complex systems such as biological organisms, and also systems as large as the universe. The reductionist view conceives reality as being constructed ground-up of smaller entities that are effectively observable, measurable and consequently controllable. It appears that transhumanism, while proposing a radical break with a historic humanity, seeks a renaissance of modernist ideals — especially the ideal of an absolute and deterministic science, and the ideal of the autonomous, will-driven, individual.



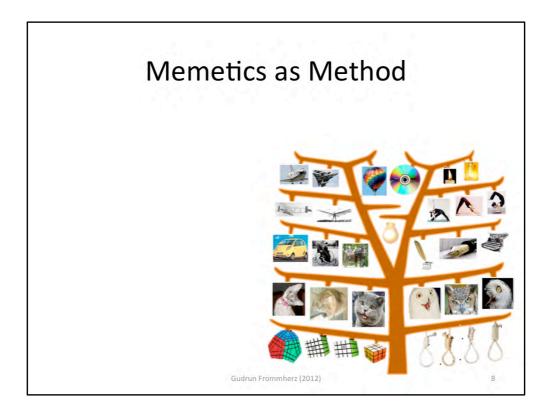
If an image speaks a thousand words, it may do so without committing to any one of these words. Within the emerging transhumanist discourse, images facilitate abstractions and allow a metaphoric play that is largely inaccessible to other forms of communication. Visual shorthand can be extremely adaptive to varying – and even conflicting – connotations, which need not to be definite but are nevertheless obvious to the beholder. I believe that it is these characteristics that authorize images as visual memes of a transhumanist ideology.



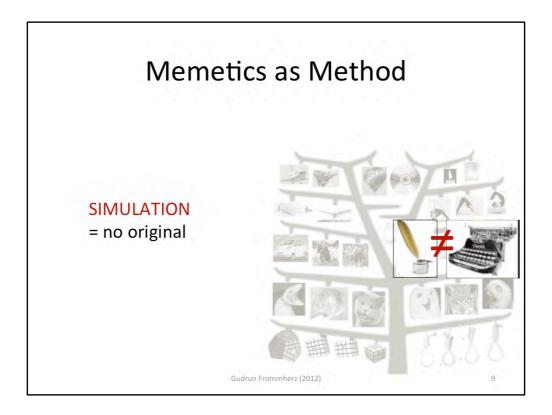
Memes, a term inspired by the scientific concept of genes, stand in as units of cultural content – manifest ideas, cultural expressions, and intellectual objects. With the transfer of the metaphor of the gene to cultural processes, the methods and values attached to genetics as science are equally transferred into the cultural domain. The same way that genes are considered blueprints that define biological expressions, memes are utilized to address cultural units as building blocks that, in aggregation and 'right' combination, form a cultural expression – a way of thinking, a habit, or a cultural fad. Simon Young (2006) calls these aggregations meme maps, and their purposeful organisation into a guiding mental concept, or a philosophical system, a metameme. Transhumanism is such metameme that, according to the evolutionary principle of natural selection, seeks replication by spreading from human mind to human mind.



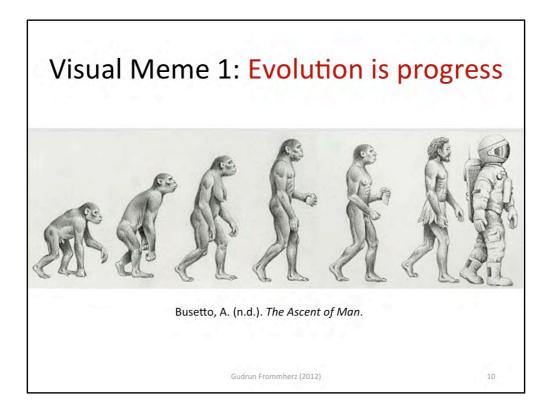
Genetic copying occurs through the inheritance mechanisms of imitation and replication. *Imitation* is based on the observational acquisition of 'how to' information that is then copied by mimicking. In imitation, the copy is largely identical with the original. Eventual changes between original and copy occur through the evolutionary principle of variation, a mechanism of slow and gradual change between generations.



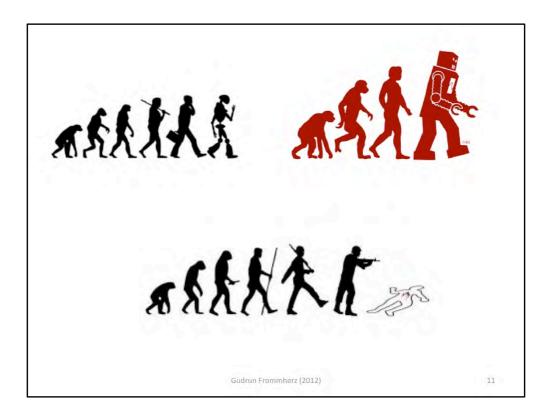
In memetic replication imitation is equalled with *simulation*, which is the creation of a new entity without drawing from a leading blueprint, without a 'parent'. Baudrillard (1981) has pointed out that within the cultural-material pool of contemporary society there would be no original but rather simulations of simulations, copies without original, *simulacra*. The significance of simulacra for memes is vital: due to the independence of the simulacrum from any normative primary, memes need not be rooted in an existing ontology; they are autonomous simulations, artificial creations of cultural information free of a relationship to reality and unconstrained by any concerns with truthfulness.



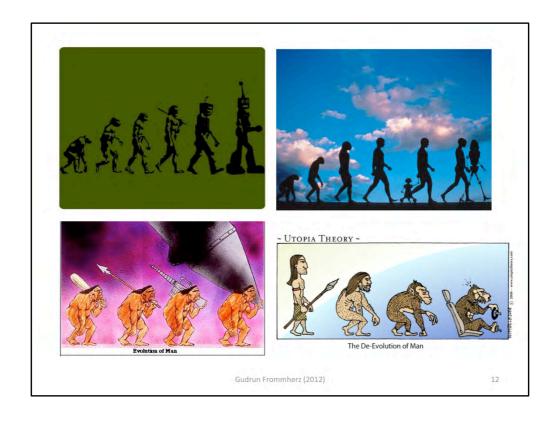
Tom Mitchell (2003) argues that in cybernetic reproduction, a copy may not just be free of 'natural' flaws in the primary version but actually *better* than the original, an augmentation. The cybernetic idea of simulacra translated to genetic copying would then justify creational simulation of new, *improved* organisms as envisioned by transhumanists. Consequently, the simulacra of enhanced transhumanism may arise independently of evolutionary links to humanity as a new (posthuman) species. Young's manifesto "*let transhumanism free us from our biological chains*" resonates such desire for simulation of a genuinely neoteric human model that has no original in present or past humanity.

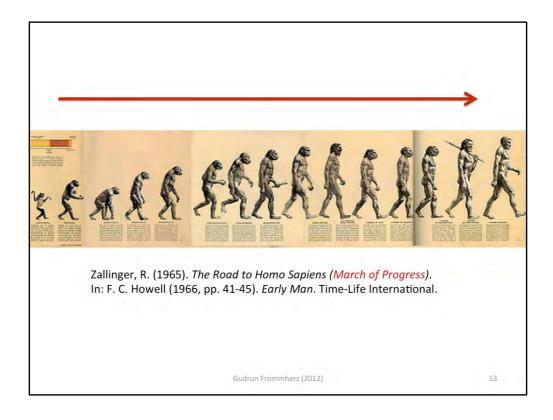


We here look at a well-known visual meme that I use to demonstrate how memetic images establish and perpetuate a transhumanist ideology. The image ascertains the idea of evolution to be inherently progressionistic, which means that the development of humanity escalates towards ever-improved forms and abilities. This is a vital concept for the transhumanist idea of human enhancement, and the belief in a human authority to drive such enhancements.



As part of popular visual culture, the evolution of man has been visualised many times, and mostly so as a line of progression from primate to present human and beyond.

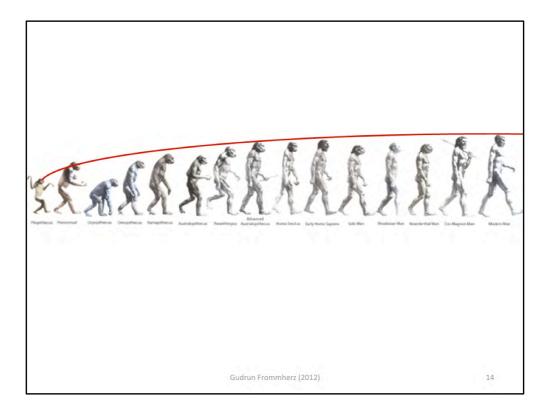




Many of these images are recycled and reinterpreted based on predecessors from early scientific drawings, mainly Zallinger's (1965) *The Road to Homo Sapiens*, better known as *March of Progress*.

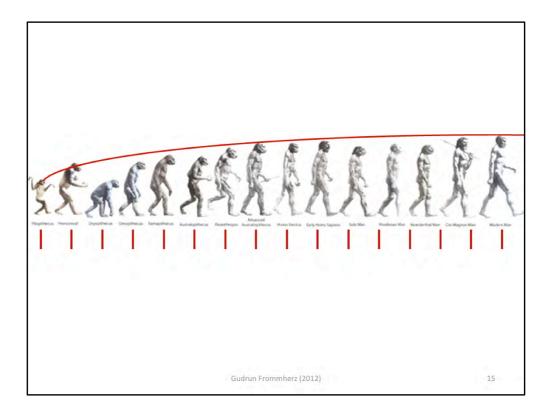
It is by concord of several visual abstractions that the Zallinger image suggests the idea of linear progression towards a perpetually improving humanity. First, the image illustrates linear progression by sheer arrangement of the humanoid figures, walking on eye level and in reading direction across the view frame of the spectator.

As a visual convention in left-to-right reading cultures, directionality towards right implies forward movement while left directionality would suggest regression. Next, the image enforces the meme of progression by depicting its subjects in *march*, the action of decisive forward motion. In transhumanist interpretation, the forward march symbolises humanity's *will to evolve*, "the capacity for motivational choice by the conscious, rational mind" (Young, 2006, p. 168).

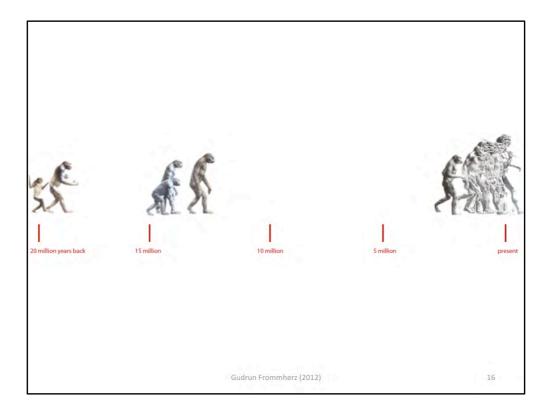


Further, progression is suggested by a gradual increase in body height and erect posture in the figures. Effectively, increasing tallness and straightness create a rising silhouette line that visually suggests advancement. Uprightness of stature thus becomes a symbol of evolutionary progress. The biologist Jerry Bergman comments on this an artistic falsification: "The figures [...] become taller as we move toward modern man, not because of fossil or other empirical data demand it, but rather as a result of artistic license that allows the artist to distort the picture to conform to evolutionary theory."

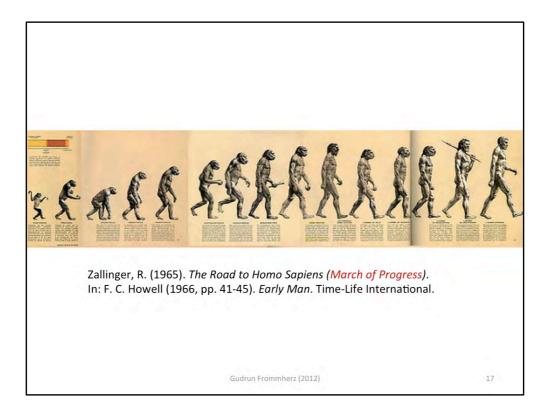
If viewed more closely, human prototypes have undergone repeated variations in body height and erectness that are thought to relate to environmental pressures rather than evolutionary 'choice'. Scientific data suggests that body size is much more likely to be a result of adaptation to existing environmental conditions and not, as advocated by the progressionist meme, a consequence of purposeful human advancement towards increasingly higher forms.



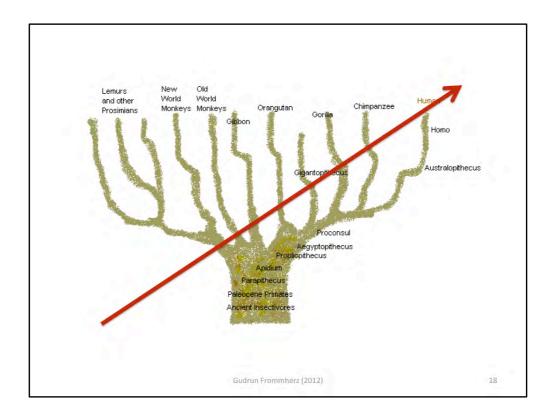
Lastly, the ascending curve line of body height and posture effectively arises from a temporal distortion of human development. Spatially, the figures in the image are uniformly spread out along the march of progress, which suggests an even – and thus continuous – progression towards a superior human purpose.



In considering the actual assumed timeframes of evolution between each developmental order, a different image arises – an image that dissolves the impression of gradual and steady change in favour of a cluster model where "change is more often a rapid transition between stable states than a continuous transformation at slow and steady rates" (Gould, 1989, p. 213).

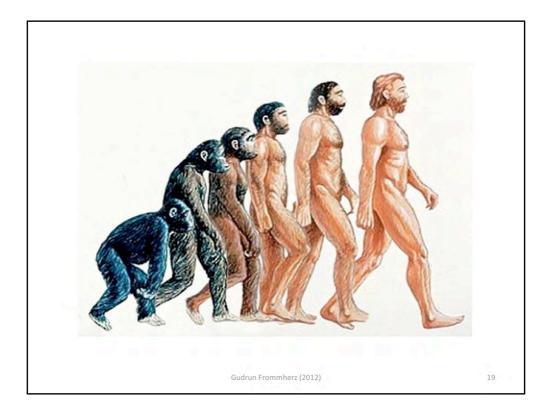


The intention of the Zallinger illustration mainly was to present snapshots of human development – not to make an argument for a linear, sequential progression of evolution where each order is replaced by its successor. The textual notes in Zallinger's image draw explicit references to evolutionary branching, extinctions and influences from other lineages, thus to suggest a tree structure rather than a straight road.

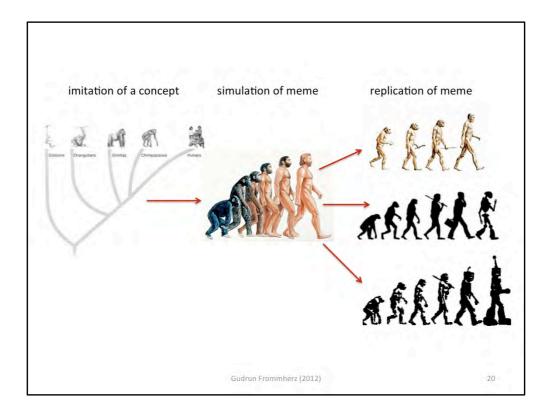


Despite a quite clear scientific argument for a much more complex evolutionary pattern of human development, the visual snapshot of linear sequence became the canonical icon of humanity's advancement from ape to man. The biologist and critic of progressionist evolution, Stephen Jay Gould, referred to *The Road to Homo Sapiens* as "the one picture immediately grasped and viscerally understood by all" (1989, pp. 31).

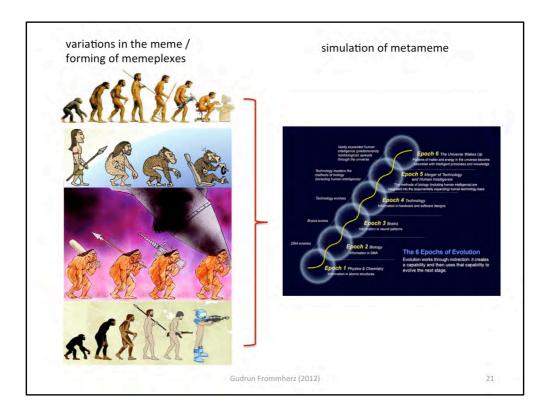
It is through reduction in differentiating information and by visual abstraction from a complex to a simplified pattern that the progressionist meme could win its visual persuasiveness.



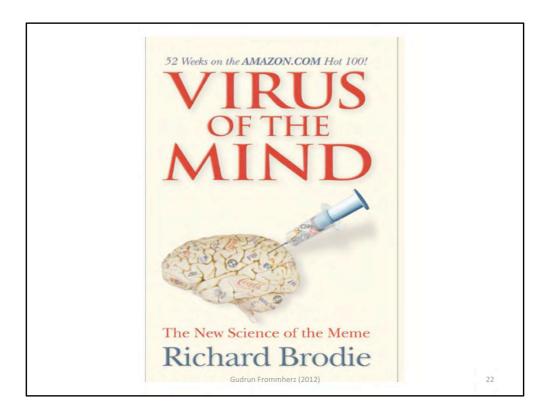
Evolutionary variations in the visual syntax of an image have the power to cause semantic mutations, a sudden change in the meaning of the image's message. The image here creates a visual morph from ape to human, thus enforcing the idea of sequential ancestry through visual transformation between states. The idea of progress is made even more explicit by depicting the modern human as walking away from its ancestry, to leave evolutionary links behind, to become *free from biological chains* (Young, 2006). Further, the morph also transforms hairiness and skin colour of the evolving human. In this example, the progressonist meme takes on a racial preference: the ideal of modern man is encoded as a fair Caucasian male.



The mutated meaning of the icon of evolutionary progression simulates the meme of purposeful and continuous advancement toward human superiority. Consequently, replications of this meme will inherently carry the same connotation. Replication in memetic communication is vital as it multiplies the meme. The cultural theorist Ira Livingston (2009, p. 248) argues that it is the reproductive cycling of simulacra that displaces qualitative complexity in visuals with a quantitative density in the visuality these images produce. In other words, the scale of penetration (or the number of replicates) determines the perceived message quality of the meme.

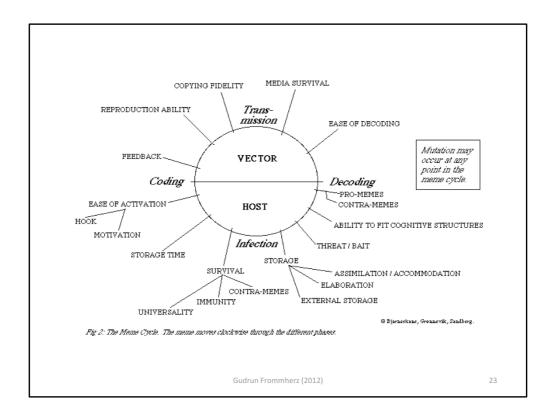


In the examples here, variations in the progressionist meme give rise to an additional message; the message that progression is realized through technology, through the invention of increasingly powerful tools and processes. Following, the jump from human progression to technology as the actual evolving agent is small. From the memes of 1) progressionist evolution and 2) technology as evolutionary driver, the metameme of a technological teleology arises. The famous Kurzweil image (right) depicts the evolution of a technological universe where technology evolves autonomously driven by its own purpose. Needless to point out that such evolution is neatly linear and sequential as is the visualised progression of man.

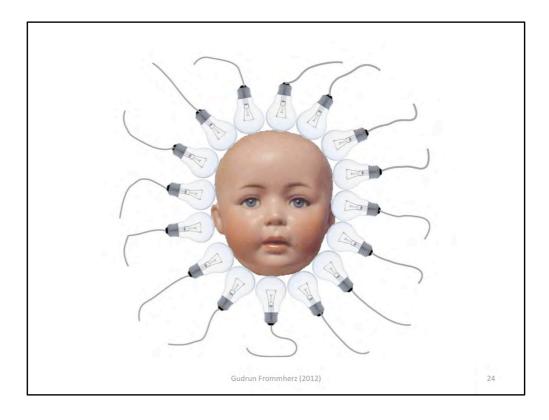


My discussion of the March of Progress icon seeks to demonstrate that memes function as cybernetic units that are *interactive*, *reflexive* and *autonomous*.

Memes are *interactive* as they seek communication with and transmission to another host, ideally a new, still unaffected, human mind. Indeed, memes have been likened to viruses that spread like contagions. In visual memes, the process of transmission is supported by gross simplicity of the memetic message, a crystallisation of complexity into a reduced and rationalised representation.



Memetic *reflexivity* arises from the capacity of a meme to change the behaviour in the host with the goal to nurture the interests of the meme over the interests of the host. F. C. Howell, the author of *Early Man* (1965) for which the Zallinger image was commissioned, very well knew of the contemporary theories that conceived human evolution as a branching tree, not a linear pathway. Nevertheless, the simplicity and intuitive quality of the linear abstraction "constituted powerful visual 'proof' for human evolution that even a small child could grasp" (Lubenow, 2004, p. 39). Howell, apparently, appreciated the persuasiveness of visual abstraction above scientific rigour. The futurist philosopher Daniel Dennett (1991, p. 207) asserts "memes restructure a human brain in order to make it a better habitat for memes".



Memes are *autonomous* as they inherently carry the mission to self-replicate, to spread the ideology of their metameme within a culture. While memes require a medium of transmission (a material semiotic system), they do not require the *intention* of their host to further transmit the meme. The visual example of the progessionist icon suggests that memes arise and transmit by isolating bits of information from their original contexts, turning these bits into icons of public half-knowledge (e.g. 'evolution improves a species') and by attaching a simplified intuitive value (e.g. 'progress is good') to these iconic snippets. These messages are then replicated by sheer intuitive powers; they function as 'sticky' ideas that are easily grasped and easily reinterpreted. Hereby, neither accuracy nor truth value are relevant. What is important is their convenient encapsulation as memorable phrase, a quotable slogan, an iconic image, a visceral idea.



What makes memes the *power tools* (Young, 2006) of transhumanist discourse is their *fictional* character. As I have suggested, memes are inventions, simulacra that arise from re-contextualising simulations, not imitation of information.

Gould once said: "Debate is an art form. It is about the winning of arguments. It is not about the discovery of truth. There are certain rules and procedures to debate that really have nothing to do with establishing fact". The same might be said for memes; memes are the art form of encapsulating and spreading a simulated episteme that, essentially, is "not [...] a truth-seeking but power-



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