

## Chapter 6

### Language and Culture in Consciousness Explained

#### 6.1 Introduction

Language and culture are the two pillars by which Dennett's basic theory of consciousness is conceived. Hence, we begin by investigating them before other related issues are considered in subsequent chapters. It starts by examining the credibility of Dennett's claims of human consciousness by associating it with animal consciousness. Thereafter, Dennett's linking of culture to consciousness is briefly looked at, followed by an examination of the issue of complexity in consciousness. Subsequently, in the final section, we review Dennett's central notion of meme vis-à-vis consciousness.

#### 6.2 Language, Culture and Consciousness

Arguably, the way Dennett formulates his theory makes it difficult for one to know if anything is conscious. We could, for instance, substitute with 'X' whenever the word 'consciousness' appears in Dennett's book *Consciousness Explained* (Dennett 1991h), and hand it to someone unaware neither of Dennett nor philosophy of mind at large. Most likely than not, she would fail to tell the

underlying intent of Dennett's theory, because clues as to what 'X' is would be predominantly associated with discussions of virtual machines, software, computers, culture, language and the likes. Considerations by which consciousness is normally regarded necessary (for their presence), but is likely to draw a blank when these are postulated as factors responsible to give rise to consciousness. However, as it is difficult to prove or disprove the thesis (where further arguments only likely to end in deadlock), we set aside the besetting doubt as to how mere implementation of software on some hardware could give rise to consciousness,<sup>1</sup> and concentrate instead on his discussion of virtual machine and culture. As discussed last chapter, culture and language are both the crux to the understanding of Dennett's position on consciousness.

To Dennett, anything that possesses the virtual machine is in the full sense conscious,<sup>2</sup> so "what we need to understand is how human consciousness can be realized in the operation of a virtual machine created by meme in the brain" (CE 210), for "[t]he way in which culture has become repository and transmission medium for innovations is important for understanding the sources of design of human consciousness" (CE 199-200), as it "has the potential to contribute remarkable design enhancements to the underlying machinery of the brain" (CE 208). In other words, "[a] virtual machine is what you get when you impose a

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<sup>1</sup>We would briefly comment this in section 6.3.

<sup>2</sup>To reiterate what we saw in earlier chapter, Dennett asserts that "[a]nd so I hereby declare that YES, my theory is a theory of consciousness. Anyone or anything that has such a virtual machine as its control system is conscious in the fullest sense, and is conscious because it has such a virtual machine" (CE 281; see also CE 431). But what is a virtual machine? A virtual machine is "a sort of evolved (and evolving) computer program that shapes the activities of the brain" (CE 431).

particular pattern of rules on all that plasticity" (CE 211). However, these patterns of rules that contribute to the making of mind could not have formed without language. It is only when "our brain have built the entrance and exit pathway for the vehicles of language, they swiftly become parasitized by entities that have evolved to thrive in just such a niche: memes" (CE 200). Hence, it is only upon the onset of language<sup>3</sup> that "[t]housand of memes, mostly borne of language but also wordless images and other data structures, take up residence in an individual brain shaping its tendencies and thereby turning it into mind" (CE 254).

But how do we actually know if something is conscious? Identifying consciousness with virtual machine does not seem to make the question any less inscrutable. As Dennett himself argues, "successful installation [of consciousness] is determined by myriad microsettings in the plasticity of the brain, which means that its functionally important features are very likely to be *invisible* to neuroanatomical scrutiny" (CE 219, emphasis added). So, it is in principle undetectable. Ability to issue report is helpful but is certainly inconclusive.<sup>4</sup> So, how could consciousness be known? On the construal of Dennett's theory, one clue to the question could be found in his writing when he argues that "the virtual machine that I am talking about can exist *only* in an environment that has not just language and social interaction, but writing and diagramming as well" (CE 220,

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<sup>3</sup> "[T]here has to have been a revolution ... a software revolution – in the organization of our information processing system, and that has to have come after language" (BC 130), for "evolution of memes could not get started until the evolution of animals had paved the way by creating a species – homo sapiens – with brains that could provide shelter, and habits of communication that could provide transmission media for memes" (Dennett 1990a: 128; DDI 345). See also note 20, p.181 in Chapter 5.

italics mine; see also BC 346).<sup>5</sup> So, in important sense, this serves as approximating indices to the presence of consciousness (according to Dennett's theory). Hence, let's take this as the starting point of analysis.

This is a crucial claim, for it suggests that consciousness, the way it is known to us, most likely than not, is a phenomena of human monopoly. In fact, we see Dennett claims that, "I think the more particular hope that cognitive ethology will shed light on animal consciousness is a red herring. The only concepts of consciousness that yield genuinely explanatory attributions are applicable only to creatures with a full-fledged natural language – human beings" (BC 321n2). Besides, "[i]n order to be conscious – in order to be the sort of thing it is *like something to be* (emphasis added) – it is necessary to have a certain sort of informational organization....that is swiftly achieved in one species, ours, and in no other...I am claiming that what must be added to mere responsitivity, mere discrimination, to count as consciousness *at all* is an organization that is ubiquitous among sentient organisms" (BC 347).<sup>6</sup>

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<sup>4</sup> For Dennett himself claims that "[a] normally sufficient but not necessary condition for having experienced something is a subsequent verbal report" (CE 140).

<sup>5</sup> As writing and diagramming are arguably closely related to language, our analysis would focus on language. Besides, this is the greater concern in which large part of Dennett's related writing revolve. Social interaction may also play instrumental role in the birth of language, but since Dennett has not said more on this, it is not further discussed.

<sup>6</sup> Correspondingly, we see him argues that "Barry Smith noted at Sheffield that 'there is a way our minds are known to us that is not available to animal minds.' I agree, but I am inclined to disagree with his softening of this striking claim: 'There is no reason to deny them an inner life.' There is indeed a reason: They aren't first persons in the way we are. They don't have to be, so anything they have in the way of an inner life must be so dimensionally thin, so impoverished to the vanishing point as hardly to count as inner life at all" (RLM 293n3; see also GR 563n35). It may be illuminating to see Block's perception of the issue. "Jaynes has a very concrete version of Dennett's hypothesis that consciousness is a cultural construction, namely that it was invented in Europe by the ancient Greeks around 1400 B.C. We don't need to get into the issue of what Jaynes actually meant by 'consciousness.' For my purposes, the issue is what Dennett



But how far is this true? Perhaps there truly exist some important relations between language and consciousness, in that development of language may have, in some ways, conditioned the development of human brain.<sup>7</sup> However, it seems unwarranted to identify consciousness as such with language and especially culture *per se*, the way Dennett would have it. Windows into animal minds, though having its own shortcomings, may nevertheless provide some important insights.

There is little doubt that our closest primate cousins, the chimpanzees and bonobos are conscious, in the *robust* sense of the word.<sup>8</sup> It is controversial but

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takes Jaynes to mean, because Dennett himself endorses the idea that consciousness is a cultural construction in this sense... W. V. Quine tells me that he asked Jaynes what it was like to be a person before consciousness was invented. Jaynes replied, Quine says, that what it was like to be them was no different from what it is like to be a table or chair. The passage just quoted suggests that Dennett would agree" (Block 1994a: 34-35). Admittedly, arguments here (in this section) skirt largely on intuitive grounds, as Dennett's own exemplifications are no less so. See, for instance, his remarks (Dennett 1993e: 147-149) in the face of criticisms (Lockwood 1993: 66, Fellows and O'Hear 1993: 80, BC 347).

<sup>7</sup> "Language as we have seen, plays an enormous role in the structuring of a human mind" (CE 447; RLM 292, Densmore and Dennett 1999: 752).

<sup>8</sup> Of course, it would be difficult to prove these creatures conscious, any more than one could prove a toddler, for instance, is conscious. However, our knowledge of these creatures seem to have gone beyond simple excesses of anthropocentric prejudices. If this is the case, then refusing to recognize similarity when warranted is just as fallacious as indolent and irresponsible anthropomorphism (Dawkins 1998: 14). Dennett, for instance, writes that "[a] chimpanzee can readily learn to reach through a hole in the wall of its cage for bananas, guiding its arm movements by watching its own arm on a closed circuit television monitor mounted quite some distance from his arm. This is a decidedly nontrivial bit of self-recognition, depending as it does on noticing the consonance of the seen arm movements on the screen with the unseen but intended arms movements" (CE 428). Given this, it seems unreasonable not to bestow them with genuine consciousness. As seen above, Dennett himself points out that this consciousness of chimps is a "decidedly non-trivial bit of self-recognition." The literature on this is rather extensive. It would not do justice to the richness of the work in the area, as it is impossible within the limited space here, to adequately and satisfactorily discuss them, so interested reader may wish to consult the source (see Dawkins 1998, Griffin 2001, Fouts 1997, Hauser 2000, Page 1999, Savage-Rumbaugh and Lewin 1994, Savage-Rumbaugh *et al.* 1998, Tomasello and Call 1997, Waal 1982, Wrangham *et al.* 1994, Pennisi 1999, Russon *et al.* 1996, Byrne 1995, Byrne and Whiten 1988, amongst others). But what Sue Savage-Rumbaugh shared

certainly not implausible that consciousness as mental phenomena exists in other animals (Griffin 2001, Dawkins 1998, Page 1999, Hauser 2000), besides the ones we have just mentioned. Griffin makes a pertinent point:

a few especially significant recent discoveries are important because they indicate that conscious experience is probably not a human monopoly. Neurons, synapses, glial cells, and neurotransmitters appear to be basically similar in all animals. Thus, if one were to rely exclusively on anatomical evidence at the cellular level, there would be no strong reason to deny that any animal with a central nervous system could be conscious (Griffin 2001: 149; see also Lockwood 1993: 66).<sup>9</sup>

Besides, as Dawkins underscores,

if we accept the argument from analogy to infer consciousness in other people on the grounds that they are like us in certain ways, then it is going to be very difficult to maintain that consciousness should not be attributed to other species if they have at least some of those same key features. What makes us reasonably certain that our fellow human beings are conscious is not confined to what they look like or how they live or even whether we can understand their language. Our near-certainty about shared experiences is based, amongst other things, on a mixture of the complexity of their behaviour, their ability to 'think' intelligently and on their being able to demonstrate to us that they have a point of view in which what happens to them matters to them.<sup>10</sup> We now know that these three attributes – complexity, thinking and minding about the world – are also present in other species. The conclusion that they, too, are consciously aware is therefore compelling. The balance of evidence (using Occam's razor to cut us down to

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is pertinent and illuminating. "Even after many years of watching and studying bonobos, I still cannot help but sense that I am in the presence of the emergence of the human mind, the dawn of our peculiarly human perspective and feeling... There is a kinship I recognize when I interact with young children... With bonobos, I experience a similar two-way understanding. I know how they feel, and they know how I feel. This is possible because of the expressions that emanate from their faces, the way they interpret the feelings of others, the depth of their commitment to one another, and the understanding of another that they share. Their sharing of emotional perspective is of a peculiarly human sort, and I relate to it, and am bound into their feelings, in a natural manner, without effort. A human does not need to read a catalogue of bonobo facial expressions or vocalizations to understand the bonobo. When I observe a bonobo, it is as though I am standing at the precipice of the human soul, peering deep into some distant part of myself" (Savage-Rumbaugh *et al.* 1998: 4). And Jane Goodall in her usual straightforward and uncompromising manner avowed emphatically: "[c]ertainly anyone who had anything to do with primates or pigs really does know that they are intelligent. You can't spend time with animals and not realize this unless you are completely stupid yourself" (cf. Page 1999: 225; see also Block 1994a: 29-30).

<sup>9</sup> One could find a close parallel in Dennett's writing, bestowing conscious experiences based largely on anatomical evidence. "Not all creatures with eyes have any sort of color vision. Birds and fish and insects clearly have color vision, rather like our 'trichromatic' (red-green-blue) system; dogs and cats do not" (CE 377), though Dennett counsels caution in such applications (BC 340, KM 94).

<sup>10</sup> Dennett himself acknowledges that ultimately we have to rely "on 'third person' behavioral evidence to support or reject hypothesis about the consciousness of animal" (BC 339, 349).

the simplest hypothesis) is that they are and it seems positively unscientific to deny it (Dawkins 1998: 176-177).<sup>11</sup>

If it is not remotely implausible to grant at least that much, we have not, however, seen these creatures possess human kind of language in their natural habitat (and no less significantly, nor do these animals, except the higher primates, possess culture). Dennett, for one, acknowledges that “no evidence yet unearthed shows that any other animal is capable of doing anything like what we do with our words” (RLM 292; Dennett 2000c: 21, DDI 371, 381). Apes, the species that is closest to us genetically, even lack the necessary anatomical structure for speech and gesturing the way we do (Savage-Rumbaugh *et al.* 1998: 13-14, Wallman 1992: 12),<sup>12</sup> not to mention other creatures that are even further from us in genetic lineage. So, contra Dennett, at least it shows that languageless creatures (and animals without culture) could possess consciousness, the way it is customarily apprehended.

Having said that, for the sake of argument (and concurring with Dennett), let's grant that languageless creatures possess only adulterate form of *truncated* consciousness (CE 447, BC 347). Though Dennett has not explicitly elaborated

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<sup>11</sup> This is also to some extent echoed in Dennett's writing. Let's see what Dennett says with regards to defining consciousness: “[d]etermining that this internal process occurs in a particular organism is presumably a difficult but clearly empirical task. Suppose that with regard to some creature it were completed successfully: the creature is, by this account conscious. If we have understood the proposal correctly, we will not find any room to wonder further. Reserving judgment here would be like being shown in detail the operations of an automobile engine and then asking, But is it really an internal combustion engine?” (Dennett 1987d: 162).

<sup>12</sup> Acquisition of language in lab (for chimps and bonobos) “is extraordinarily dependent upon its being reared from birth in a language-saturated environment – one in which members of a social group coordinate their activities via language throughout the course of each day” (Rumbaugh *et al.* 1994: 320). Of course, there is controversy as to what they really acquire is language, but for what is known, we have not seen any serious primate scientists suggest that

on this supposedly attenuated kind of consciousness, we may get a glimpse of its intended meanings by harking back on Dennett's earlier elucidation of consciousness in terms of awareness<sub>1</sub> and awareness<sub>2</sub> which Dennett himself still basically espouses (see Dennett 1969: xi, BC 358-359, BS 31n). According to this scheme, phenomenal richness of experience is only present in awareness<sub>1</sub>, the sole prerogative of humans, whilst animals have only awareness<sub>2</sub>, which is hollow phenomenologically, devoid of subjective qualitative feelings - the way it is like to be for subject of a control system. Because according to Dennett, "A is aware<sub>2</sub> that p at time t if and only if p is the content of an internal event in A at time t that is effective in directing current behavior" (BS 30). In other words, it is "the mere capacity for appropriate responsivity to stimuli, a capacity enjoyed by honeybees and thermostats alike" (BC 358).

Arguably, this perhaps overdrawn dichotomy does not appear to sit well with his conceptualization of consciousness elsewhere (as we shall see below).<sup>13</sup> Quite the opposite, we see Dennett concedes that "[w]e naturalists think that consciousness, *like locomotion or predation*, is something that comes in different varieties, with some shared functional properties, but many differences, due to different evolutionary history and circumstances" (ZH 38, emphasis added). If this is the case, then Dennett's concerted attempt in theorizing of consciousness as natural phenomena arguably appears one-sided and partial. The locomotion and predatory

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chimps have thereby become conscious or have their consciousness augmented owing to subsequent acquisition of language or proto-language in human settings.

tools, which Dennett *likens* to consciousness, may well be very dissimilar amongst its proprietor, but surely none of these variegated designs could be thrust aside or disregarded as unimportant in the *overall* developmental history of the evolution of locomotion and predatory tools. Similarly, nonhuman variant of consciousness may well be very different from that of men, but they are still conscious phenomena that need to be heeded and accounted for. This is particularly important if we seek to have more complete understanding of the evolutionary origins of consciousness at large.<sup>14</sup>

Hence, arguably, if Dennett's insinuation above is to be seriously heeded, at the very least, he appears to owe us an account of how animal consciousness could have arisen in the absence of language and culture (for animal consciousness, no matter how different or truncated is also a variant of conscious phenomena).<sup>15</sup> We note this is, in fact, very much at odd or rather not being significantly accounted for, given Dennett's central concern (i.e., language) in his writings on consciousness:

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<sup>13</sup>Where it might turn out to be more unified and homogenous than what Dennett thinks possible.

<sup>14</sup>Be it human consciousness or consciousness as ubiquitous phenomena.

<sup>15</sup>For we see Dennett claims that "I have argued at length, in *Consciousness Explained*, that the sort of informational unification that is the most important prerequisite for *our* kind of consciousness is not anything we are born with, not part of our innate 'hard wiring' but in surprisingly large measure an artifact of our immersion in human culture" (BC 346, italics his). But if this is what it takes for human kind of consciousness to emerge, what of animal consciousness?

Jaynes account of the *origins* of consciousness<sup>16</sup> (emphasis added) depends on the claim that an elaboration of a conceptual scheme under certain social and environmental pressures was the precondition for the emergence of consciousness as we know it...Jaynes idea is that for us to be the way we are now, there has to be revolution....and that has to have come *after* language. That I think is an absolutely wonderful idea.... something like what he proposes has to be right (BC 128, 130; italics his).<sup>17</sup>

This talk of the *origin* of consciousness is misplaced at best. If evolution tells us that the locomotion and predatory tools (as alluded to above) are the legacy of past evolutionary developments, we ought expect the same of consciousness. Therefore, if Dennett's analogy of animal locomotion and predatory tools to consciousness is to be taken seriously, it appears that human consciousness<sup>18</sup> (like any other perpetually evolving evolutionary designs) is only a *manifestation* and *extension* of animal consciousness (because we are their direct descendants).<sup>19</sup> If this is the case, then Dennett's rendition of the origin of consciousness above may have unnecessarily downplayed the significance of this obligatory step in its developmental episode whilst perhaps overestimated the role of language and culture in characterizing the evolutionary history of (human) consciousness. So, even if Dennett is right in emphasizing culture and language as *primary* forces responsible in its genesis, his account is *incomplete*

<sup>16</sup> Dennett also puts it this way: "[Y]ou can't have consciousness until you have the concept of consciousness... that's the basic shape of the move" (BC 128; see also GR 550). This also underscores Dennett's heavy reliance on concept to ground conscious phenomena.

<sup>17</sup> Dennett's concept of consciousness may not be sufficiently exacting, resulting in confusion at times as one may be at a lost exactly which concept he refers to. As Lockwood also reckons: there is "crucial equivocation in Dennett's book. Dennett oscillates between speaking simply of 'consciousness' and speaking, instead, of what he variously refers to as 'human consciousness,' 'our kind of consciousness' or 'consciousness in the fullest sense.'" (Lockwood 1993: 66).

However, as we shall see, if by "origin of consciousness," Dennett is here referring to human consciousness, this talk of origin is likely misplaced. But even if Dennett is referring instead to consciousness as ubiquitous phenomena, arguments below apply nonetheless – even more so.

<sup>18</sup> That is, if 'origin of consciousness' is here taken to mean human consciousness.

<sup>19</sup> The way, from a macro vantage point, reptilian (and even the more distant amphibian and fishes) locomotion and predation apparatuses are often a precursor to the later evolution of similar contrivances in the subsequent emergence of mammals.

at best.<sup>20</sup> Lets also consider a close analogy.<sup>21</sup> To provide an evolutionary account of the emergence of ultra-sharp acoustic sensitivity of bats (which is surely more advanced and developed than most creatures, analogous to the way human consciousness is arguably by far the richest and most complicated) is far from accounting for the origin of hearing as such (or analogously the origin of consciousness), as ancestry of bat's hearing is certainly much more intricate and extend far backward in time than those witnessed in bat's evolutionary episode. For an account that relates the emergence of the more 'advanced' design of our eyes or ears with some relatively current selective evolutionary pressures could hardly be said to be *the* account of the origins of eyes and ears (and hence also the origin of consciousness) at large.

If Dennett's association of language to consciousness is questionable (or at least partial), his purported attempt to bridge language to consciousness through the intermediary of culture is also not unproblematic, for culture also seems possible in spite of language. We observe Dennett himself concedes that rudiments of

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<sup>20</sup> Arguably, if Dennett could provide a cogent account of the developmental episode of this pre-human consciousness, his heavy reliance on language and culture to ground human consciousness would appear more plausible and convincing, because as it is, lurking in the background is the worry that Dennett may have the importance (or priority) of the story reversed - in erroneous order (i.e., culture and language may not be as important as Dennett takes them to be). Incidentally, Dennett has not provided anything stronger than mere suggestion that consciousness originates the way he proposes. *Consciousness may turn out to be more continuous and more closely associated amongst living organisms than the way Dennett proposes.* Besides, if Dennett's aim to equate consciousness with human consciousness is to be seriously heeded - for instance, he says that "thanks in large measure to language - so different from that of any other species that to call the other varieties consciousness is to court confusion..." (Densmore and Dennett 1999: 759) - then the sudden explosion of consciousness (with the onset of culture) within the compressed history of mankind (which is barely a drop in the ocean of evolutionary history) seems to commit Dennett to a version of Gould's punctuated

culture are in fact demonstrated in other animals. "We are the only species that has an extra medium of design preservation and design communication: culture. This is an overstatement; other species have rudiments of culture as well, and their capacity to transmit information 'behaviorally' in addition to genetically is itself an important biological phenomenon, but these other species have not developed culture to the takeoff point the way our species has. We have language, the primary medium of culture, and language has opened up new regions of Design Space that only *we are privy to*" (DDI 338; see also McGrew 1992, Wrangham *et al.* 1994, Whiten *et al.* 1999, Vogel 1999). But certainly none of these animals said to develop culture possess language, in the genuine sense. Hence, even language is distinctive of culture as far as humans are concerned, the primacy of language with respect to culture, the way Dennett would have it, is not an unchallenged presupposition.

Language may be the most efficient means of natural communication yet devised and human beings may be the only naturally linguistic creature (both debatable points), but why should language be essential to culture....Both living and pre-verbal humans and non-verbal humans readily learn new behavioral patterns without it...Moreover, if language were a necessary and sufficient condition for the emergence of culture, then we would probably have to deny culture to evolutionary pre-linguistic creatures ancestral to anatomically modern Homo...This might mean excluding, for example, those responsible for the Shanidar flower burial...This seems excessive... (McGrew 1992: 86; see also Lockwood 1993: 67, Fellows and O'Hear 1993: 80, Block 1994a: 23-38, Toribio 1993: 45, Kirk 1993: 340, Dretske 1994: 44-45, Churchland 1995: 271, Churchland 2002: 64-65, 79).

As far as theoretical formulation is concerned, Dennett presents strong arguments that bind together language, culture and consciousness. That is, on Dennett's construal, emergence of culture and consciousness, one way or the other, is

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equilibria which he himself dubs "hopeful monster" (see DDI 282-289). Curiously, his distaste for views that consider nature taking *large evolutionary leaps* is not somehow heeded here.



doggedly knit to language. But if culture is possible without language, Dennett's theory probably needs to account for how culture could arise in the absence of language and to examine if this language-absent-culture is also to play a role in the emergence of consciousness (be it human or nonhuman consciousness), failing which it is likely to leave a rupture or void in Dennett's undertaking, for these questions may ultimately turn out to have nontrivial repercussions on Dennett's theorizing of the matter at large.<sup>22</sup>

### 6.3 Complexity and Consciousness

However, in spite of the above, it may be instructive to explore this Dennettian belief (in a highly culture-dependence thinking on consciousness) by using a thought experiment. To avoid making too many unwarranted assumptions, we could make use of Dennett's imaginary robot-cum-hibernation device designed to safeguard its denizen from harm for almost half a millenium long as makeshift to make the point (IS 295-298, DDI 422-427). Apparently, to survive in difficult and changing environment in such long period, the robot capsule needs to be equipped with almost human-like capabilities to compete or join forces with those it finds itself with, in other words, to find the best means to increase its chances of

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<sup>21</sup>Where, lets assume, consciousness is here construed ubiquitously.

<sup>22</sup>For instance, one possible contention is that chimpanzees and other higher primates are arguably conscious and possess some rudimentary forms of culture, but they are not naturally linguistic animals. Could we then attribute the emergence of consciousness in these creatures to their language-absence-culture. And if the answer is in the affirmative, then Dennett would probably have to reconsider the absolutist role of language in his formulation of consciousness. Conversely, the role of language and culture in the emergence of consciousness is likely suspect otherwise (consciousness is construed here the way it is commonly known to us).

survival.<sup>23</sup> We could adapt this thought experiment for our purposes by endowing the robot with language (and the capacity to give rise to descendants). With linguistic capacity, the capsule robot presumably becomes even more efficacious in negotiating with its demanding surroundings.

Endowed with language and equipped with some very human-like intelligence, following Dennett's logic, we ought to expect this to give rise to some form of culture (amongst the robot and its descendant as a result of its interaction with its surroundings). However, it is not easy to imagine,<sup>24</sup> even with well meant and most charitable interpretations, how via mere programming - and the later fixation of language programming - the capsule-robot or for that matter "a suitably 'programmed' robot, with a silicon-based computer brain" (CE 431)

<sup>23</sup> If robot has the capacity to compete with human descendants, it is surely smart and "would probably perform very creditably in any Turing Test to which we subjected it" (IS 297-298). What Dennett writes of the Martians elsewhere is pertinent here. "According to intentional system theory, if these Martians are smart enough to get here, then they most certainly have beliefs and desires - in the technical sense proprietary to the theory - no matter what their internal structure, and no matter how our folk psychological intuitions rebel at the thought" (IS 60). And if it is sophisticated enough to form alliances with its robot counterparts and other human descendants, its social intelligence is surely close to that of humans. As indeed, "it would be a decidedly nontrivial task to design a robot that could distinguish an apple seller from an apple tree, while not becoming a moneypump when confronted by eager salesmen. But if you succeeded in making successful purchaser-robot, you would *ipso facto* have made robot believer, a robot desirer, because belief and desire, in this maximally bland sense is a logical requirement of purchasing behavior" (BC 326). As Dennett concedes further, "the meaning such a robot would discover in its world, and exploit in its own communications with other, would be exactly as real as the meaning you enjoy" (DDI 426).

<sup>24</sup> Note, for instance, how Dennett underscores the importance of imagining in theoretical construction: "...[t]he alternative to this bad idea takes some getting used to. The alternative is the idea that the network itself - by virtue of its structure and the powers of transformation that it has, and hence its capacity for controlling the body - could assume all the roles of the inner Boss and thus harbor consciousness. That idea at first seems preposterous to many people. Both David Chalmers and Michael Lockwood remarked in their sessions in Tucson that although they acknowledge that there are people who maintain this view, they think it is simply a nonstarter. That 'the subjective point of view' can somehow be captured in the third-person resources of the structure of this functional network strikes them as inconceivable. To me it is not. What people declare to me that they cannot conceive of consciousness as simply the activity of such a functional network, I tell them to try harder" (Dennett 1998: 106; CE 434, 439-440).

could be, in any meaningful sense, said to possess consciousness, even if it ultimately demonstrates the ability to erect culture. In an important sense, erection of culture here, like the proving of theorem or the playing of chess by computer, is an innovative generation of novel phenomena from existing known rules or programs. But this is still very much rule-governed. As Dennett observes: "[p]rograms are just ordered lists of instruction drawn from a small set of primitives that the machine is hard-wired to execute. A fixed process, the fetch-execute cycle, draws the instruction from the queue in memory, one at a time, always getting the next instruction in the list, unless the previous instruction branched to another part of the list" (CE 264). However, presently, given our state of knowledge, nothing is known in programming that could plausibly give rise to consciousness. For what is worth, the foregoing thought experiment – though may not have necessarily discredit Dennett's theory - at least caution us to be more circumspect of Dennett's culture-entrenched account of consciousness (see also Churchland 2002: 68).

Apparently, Dennett seems to reckon the vulnerability of his construction (of the virtual machine) and goes on to add it is complexity that actually makes the difference.<sup>25</sup> He wrote: "Among zombies only a zimbo<sup>26</sup> could conceivably pass the Turing test; a zimbo has a highly *complex* profile as an indefinitely higher-order intentional system. But, say I, that is sufficient for *consciousness*" (MNM

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<sup>25</sup> Dennett is referring to complexity that passes the Turing test. We would first analyze the issue of complexity before taking the Turing test into account. This hopefully would make the argument clearer.

<sup>26</sup> The capsule robot could in fact legitimately be considered a version of zimbo.

923-925, emphasis added; see also IS 60). But what is a zimbo? Apparently, “[a] zimbo is just a zombie that is behaviorally *complex*, thanks to a control system that permits recursive self-representation” (CE 310; see also BC 172-173).<sup>27</sup>

However, Dennett’s ways of putting things run the risk of supplanting one’s ignorance only to replace it with others of like naivete. Certainly, postponing the question of consciousness by appealing to complexity is not the same as *explaining* it. This is not to say that Dennett is wrong, but one ought to be cautious. It is not clear how complexity *per se* could result in genuine understanding or consciousness (see also Jackson 1993: 902, Dawkins 1998: 57, 65). For instance, we would be hesitant to attribute consciousness or understanding to insects,<sup>28</sup> however, “[a]fter considering the accomplishments of insect brains, Koch and Laurent conclude that ‘no brain, however small, is structurally simple’” (Griffin 2001: 149). So, structural complexity is by no means an unproblematic earmark. Besides, complex behaviour could also exist in many kinds of systems that we would not normally think of attributing mental properties.

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<sup>27</sup> In similar manner, in his arguments against Searle’s conclusion in the Chinese room allegory that there is no genuine understanding, we see that Dennett employs similar strategy. “Probably because they haven’t learned how to imagine such a system. They just can’t imagine how understanding could be a property that emerges from lots of distributed quasi-understanding.... They certainly can’t if they don’t try.... [Searle] invites us to imagine that the giant program consists of some simple table-lookup architecture that directly matches Chinese character strings to others, as if such program could stand in, fairly, for any program at all. We have no business imagining such a simple program and assuming that it is the program Searle is simulating, since no such program could produce the sorts of results that would pass the Turing test, as advertised.... *Complexity does matter*. If it didn’t, there would be a much shorter argument against strong AI: ‘Hey, look at this hand calculator. It doesn’t understand Chinese, and any conceivable computer is just a giant hand calculator, so no computer could understand Chinese’” (CE 439-440, emphasis added).

More importantly, complexity is relative. Problems that appear insuperably complex and difficult to us may appear simple to intelligent Martians. The converse is also true. Problems that appear simple to us may turn out to be forbiddingly difficult and complex to our close cousins (the Zhimps, for instance). But surely, this shift in point of view ought not to have become the benchmark in deciding whether something could or could not be conscious. One day, we may in fact identify consciousness with X property in the brain, and thus making it less inscrutable, but the fact that it has become less complex, does not thus render it less conscious! To be fair to Dennett, he is of course relating complexity to the implementations of software programs that could pass the Turing test.<sup>29</sup> But, still, the qualm persists. If complexity *per se* does not give rise to anything remotely like consciousness in other phenomena, why is complexity in implementation of software programs makes any difference? There is likely missing link somewhere, for complexity itself cannot be the sustaining story. What Dennett says on conception in pregnancy applies well here. "Conception is, by definition we might say, the cause of pregnancy. If we had no other way of identifying conception,

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<sup>28</sup> Dennett appears to cite with approval Margolis's statement in passing that insect is likely not conscious (BC 347).

<sup>29</sup> As Dennett outlines a couple of paragraph back, a zimbo is a zombie that passes the Turing test. That is, "the sort of complexity that matters is the sort that could sustain a highly contentful and predictive intentional stance characterization. No simple machine can do that – for it amounts to passing the Turing test" (MNM 925). Surely, the capsule robot is no simple machine, in all likelihood, it fulfills Dennett's requirement of a "highly contentful and predictive intentional stance characterization," but still that does not seem to dislodge the lingering skepticism. Lockwood's commentary in this regard is especially apt and pertinent, "I'm not making the dogmatic assertion that suitable software could not render a suitable robot conscious. My point is rather that, in our present state of understanding, such a transformation would be no more rationally intelligible than it were achieved by waving a magic wand" (Lockwood 1993: 71). And if imagination is what ultimately matters, the issue is not decided at

telling someone she got pregnant because she conceived would be an empty gesture, not an explanation. But once we've figured out the requisite mechanical theory of conception, we can see how conception is the cause of pregnancy, and informativeness is restored" (CE 386).

#### 6.4 Meme and Consciousness

The aforesaid would have served its purpose if it has thrown doubt on Dennett's views, even if it does not completely disprove it. However, there is a further aspect in his association of culture to consciousness worth probing: the role of memes in his construction of the consciousness theory. Memes has been described in earlier chapter, so it would not be repeated here. What is more relevant for the task at hand is the assertion that "[n]ormal human brains are not all alike, they vary considerably in size, shape, and the myriad details of connection on which their prowess depends. But the most striking differences in human prowess depend on *microstructural differences* (still inscrutable to neuroscience) *induced by the various memes* that have entered them and taken up residence" (DDI 365, emphasis added; see also Densmore and Dennett 1999: 752, Dennett 1990a: 134, CE 207, 219).<sup>30</sup> This is important because it helps bridge meme and culture to consciousness. Incontrovertibly, it demonstrates how memes could make a

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best, because imagination by itself is incapable of discrediting someone with dissimilar ways of imagining things.

<sup>30</sup>Dennett also appears to cite with approval the followings. "Memes are capable of instructing, not protein synthesis as genes do, but behavior. However, genes can do that too indirectly through protein synthesis. On the other hand, meme replication, by involving neurostructural modifications, is invariably associated with the induction of protein synthesis" (Delius 1991: 94; cf. DDI 352).

difference to the emergence of consciousness in human – via its alteration of the brain’s microstructural makeup by performing some sort “phenotypic alterations” (Dennett 2001b: 312; Dennett 2001d: 75) - the way non-human animals would be impoverished without it.

But what on earth are memes? According to Dennett, they are essentially *ideas* (see, for instance, DDI 344, Dennett 1990a: 127-130, Dennett 2000b: vii, CE 201). As Block describes it, “memes are cultural units, the smallest cultural units that replicate themselves reliably” (Block 1994a: 23). In other words, “meme is primarily a semantic classification, not a syntactic classification” (DDI 354).<sup>31</sup> But if this is the case, it appears utterly baffling how, according to Dennett, “memes could transform the operating system or computational architecture of a human brain” (DDI 343).<sup>32</sup> Because to Dennett, “[t]he brain, as a mechanism, can respond only to the formal (not semantic) properties of its states” (BC 222; see also n 51, p.334, Chapter 9). As a matter of fact, “I have spoken...of the impotence of meaning; the brain is first and foremost a syntactic engine, which can be fruitfully viewed as reliably mimicking a semantic engine, but in which meanings themselves never overrule, overpower, or so much as *influence* the brute mechanistic or syntactic flow of local causation in the nervous system. (A

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<sup>31</sup> “One of the most striking features of cultural evolution is the ease, reliability, and confidence with which we can identify commonalities in spite of the vast differences in underlying media....What is common of course, is not a syntactic property or system of properties but a *semantic property* or system of properties: the story, not the text; the characters and their personalities, not their names and speeches... So it is only at the level of intentional objects, once we have adopted the *intentional stance*, that we can describe these common properties” (DDI 356, emphasis added). And, hence, memes are also naturally conceived as an application of the intentional stance (see, for instance, Dennett 2001b: 306-308) that needless to say, also carry with it *all the spurious baggage* that comes with taking the stance.

semantic engine, I claim, is a *mechanistic impossibility* – like a perpetual motion machine, but a useful idealization in setting the *specs* for actual mechanisms.)” (BC 63, emphasis added).<sup>33</sup>

So, we see, on the one hand, given his radical commitment of the third person, Dennett is eager to denounce meanings and the likes (see Chapter 2 and 9). By contrast, given his insistence on “likening human consciousness to software” (CE 219), he needs to find a way to fix this software to the hardware brain. Dennett discovers it in memes (which is nothing else but semantics), for he believes consciousness is of too recent innovation to be hard-wired, which explains, in part, why he chooses to rely so much on the onset of meme and culture to do the microstructural fixation, as they certainly have a legacy of much recent origin (CE 219). But on closer scrutiny, this appears a grave tactical miscalculation. It leaves Dennett’s theory in dire or even untenable position. Certainly, he cannot, save inconsistency, to be renouncing semantics and simultaneously claiming it responsible to “restructure a human brain in order to make it a better habitat” (DDI 365; Dennett 2001b: 318) for its continuous disseminations. As such, Dennett’s theory appears ill conceived, one way or the other, it only results in paradoxical consequences. Something has to give. And this only undermines

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<sup>32</sup>See also citations in the second paragraph on p. 203.

<sup>33</sup>As Dennett adds further: “[t]his is because, as we have already agreed, meanings cannot directly cause things to happen, so they cannot directly cause themselves to correspond to any causal regularities in the world. So it will have to be via an indirect process of fortuitous coincidences that are duly ‘appreciated’ or ‘recognized’ or ‘valued’ or ‘selected’ by something – either something blind and mechanical, such as natural selection or operant conditioning or ‘neural Darwinism’” (BC 67).



Dennett's theoretical stance in general, for this incongruity strikes the heart of his theory.

## **6.5 Conclusion**

Language, culture and meme are integral to Dennett's entire formulation of consciousness theory. Needless to say, if the above analyses of language and culture, alongside the paradoxical discussions of memes and semantics could not be satisfactorily reconciled, the rest of his discussion on consciousness is not likely to amount much even if they are found creditable. However, for the sake of discussion, let's set this aside and proceed to consider other related issues in the next two chapters.