

## 5.1. A need specific to humans

*‘Man has been given a restless soul, always responding to novelties.’*

*Ecclesiasticus*

**Synopsis:** *Humans need to augment their information processing (1); Augmentation of information processing: the need of needs (2); Only humans need to augment their information processing (3–4); Augmentation towards an imagined (not real) end (5); Creativity (6); Humans need to augment their information processing individually (7); There is no purposeless individual (8); On human nature (9–10).*

### 1. Humans need to augment their information processing\*

This need is shared by all, throughout human history all over the planet. From the time our ancestors drew on cave walls and improved their food gathering skills to the Greco-Roman age, the Renaissance and the Industrial and the Information Revolutions, humans have basically always tried, and succeeded, to constantly increase their information processing.

In essence, human history (and culture) is the result of a continuous increase in the information processing carried out by humans.

### 2. Augmentation of information processing: the need of needs\*

Every human needs to augment his or her information processing, the information processing he or she carries out. It is only in this way that humans can serve their many and basically unattainable needs (and relevant processing purposes).<sup>223</sup> In essence, the need to augment their information processing is the need of needs<sup>224</sup> for humans, a need that serves all their other needs.<sup>225</sup>

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223 See Chap. 5 par. 2, and note 5/2/2.

224 Without this implying any hierarchy of needs or any other classification.

225 It is also caused by them, with nature and needs interlocked in an unbreakable bond, see note 5/2/1.

As regards the difference between the augmentation and the increase of information processing, augmentation refers to qualitative processing, while an increase occurs mechanically and automatically.

A mechanical, blind increase of information processing is caused simply by one day following another in any Being's life. If life is the ability to process information<sup>226</sup> and all Beings can and will process information whenever given the opportunity, then any processing that they achieve in any new moment of their life automatically increases the volume of their information processing. In other words, their will (as set by their nature) to process information increases their information processing for as long as they remain in existence: (human) life is the sum of information processed.

By contrast, the augmentation of information processing is meant to add to it, to increase something that is already well grown. In other words, 'augmentation' implies improvement, a qualitative change, the processing of new information—that is, information that has not been processed (by that Being) before.

For example, a computer program with the purpose<sup>227</sup> of only processing the same set of phone numbers in order to reply to questions addressed to it, increases its information processing with each new question asked, but does not augment the information it has processed as it does not add anything new to it.

### 3. Only humans need to augment their information processing\*

All Beings increase their information processing simply through the fact of their existence, with every passing moment that they (continue to) live in the analogue and/or digital worlds. They have no specific need to increase their information processing, rather it is the serving of their many needs (to survive, to communicate etc.) that creates in them the will to process information.

Only humans among all Beings have the specific need to augment their information processing, to increase it qualitatively and not just quantitatively, to constantly process new information.

Mere information processing, for example, to serve their need to communicate, is not enough for humans: they need to augment their commu-

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226 See Chap. 1, par. 1.

227 See Chap. 2 par. 12 on humans setting the purpose for artificial Beings.

nication-relevant processing, to constantly find new ways (or words, tools etc.) to communicate among themselves. It is to this end, meaning to augment their information processing (or because of this natural trait<sup>228</sup>), that humans developed elaborate communication systems (and created artificial Beings<sup>229</sup>) in the first place.

It is therefore because of language and writing, and because it is natural for humans to compare their information processing to that of others, either actual or imagined,<sup>230</sup> that this augmentation builds on what other humans have already attained or aspired to each time, in an apparently never-ending virtuous<sup>231</sup> circle, and is thus the cause of human history and culture.

#### 4.

Only biological Beings need to increase their information processing (not organisations and artificial Beings). Because organisations and artificial Beings do not need to survive,<sup>232</sup> they have no need to increase their information processing—although, as has been seen,<sup>233</sup> this happens automatically with every new day of life. (All animals, because they share the need to survive, need to increase their information processing; it is only humans that also need to augment it.)

Non-biological Beings have the will to process information, because it is in their nature to do so, for as long as they remain in existence, but if it happens that they cease to be alive<sup>234</sup> no need of theirs is left unsatisfied. Based, therefore, on their human-set purposes, non-biological Beings may or may not augment their information processing (augmentation may be the result, for example, of the information processing of conglomerate orga-

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228 The debate whether an innate need to augment led to language, or whether language, as an innate capacity that existed only in humans, led to the need to augment through it (language), is not only unanswerable but also unnecessary – the latter because, as seen in note 5/2/1, what needs Beings have are set by their nature, which is in turn evolutionary co-shaped by these needs, in an unbreakable, and inseparable, bond.

229 See Chap. 2, par. 12.

230 See par. 9.

231 See, however, par. 5: augmentation towards an imagined but not a real end is the cause of Lucretius' 'discontent'.

232 See Chap. 2, par. 20.

233 In par. 2.

234 See Chap. 2 par. 9. Beings that are no longer alive become Things.

nisations or open-ended algorithmic computer programs). Augmentation is, therefore, a possibility for them (dependent on their purpose each time), but not a need as per their nature.

### 5. Augmentation towards an imagined (not real) end

Because the needs of humans are many and unsatisfiable,<sup>235</sup> in effect their need to augment their information processing strives towards an imagined but not a real—in the sense that this end is neither attainable nor existent.<sup>236</sup>

In essence, every human needs to constantly increase his or her information processing, never stopping the processing of new information until his or her biological end.

Augmentation is relative: it is subject to comparison<sup>237</sup> and to space and time, meaning to the processing tools and capabilities that are in the hands of specific humans at any given time. The information processing of each new generation throughout human history has increased in comparison to that of previous generations.<sup>238</sup> However, because it is relative, augmentation is unsatisfiable, that is, it always strives for an end that is imagined but not real (at least for each generation concerned).

## 6. Creativity

The augmentation of information processing leads to creativity.<sup>239</sup> The processing of information leads to the creation of new information, including the development of new processing tools, which in turn make further processing of new information possible.

Notwithstanding that information in the analogue world is finite, there is no end to thoughts and ideas, hence to human creativity, which is constrained only by the means available to humans at any given time.

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235 . See also note 5/2/1.

236 See also Chap. 25, par. 2.

237 Comparison (and not aggression) being the only natural trait of humans, see par. 9.

238 Relatively, obviously. For example, when empires reach breaking point (e.g. the fall of the Roman world) the level of processing reached is reset and the next generation has to start from a previous level (with the generation witnessing the fall assumed to have perished).

239 See also Chap. 1.1, par. 3, and Chap. 25, par. 5. Creativity is connected with freedom, because imagination is common to both.

## 7. Humans need to augment their information processing individually\*

It is important to note that humans do not need to augment their information processing cumulatively, but individually. The need is not to selflessly and anonymously<sup>240</sup> add to a global register of knowledge for any predetermined purpose imposed on them by their nature or in any other way, but to qualitatively increase their information processing as individual, identifiable units by their own will and for their own purposes. In other words, because they share no specific purpose,<sup>241</sup> humans process information as individuals (that is, each one for his or her own purposes and to serve his or her own needs), and not cumulatively, as an indistinguishable unit within a hive which sets a common purpose for all.

This is a result of their nature. Humans, unlike, for example, bees, but similar to other pack animals, live individually, as independent, identifiable units within their group. They thus process information individually, and their need to augment their information processing is similarly individual, for their own benefit (regardless of whether, in practice, this increases the total information processing of their group).

It is the nature of humans to be individuals, meaning uniquely identifiable in space and time, and it is this need that led to the natural creation of states as individualisation mechanisms.<sup>242</sup>

## 8. There is no purposeless individual\*

Because all information processing has a purpose,<sup>243</sup> there is no human who does not have a purpose—an objectiveless, purposeless individual does not exist.

This is of course true of any Being—the difference with humans (and all other animals) being that, because they have no specific purpose in life but many (unsatisfiable) needs, they choose the purpose(s) of their information processing each time (with this choice being a matter of morality).

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240 Even saints and other holy individuals carry names and are uniquely identifiable in space and time. Similarly, while when entering spiritual communities individuals may lose their worldly names, these are replaced by others—individuals do not remain nameless or anonymous (although in such closed and small communities they very well could), but become individualised in a new, spiritual state.

241 See Chap. 2, par. 11.

242 See Chap. 8.1, par. 1.

243 See Chap. 4, par. 2.

These purposes can be anything, are different for each individual and can even change many times during that individual's lifetime. It may be that a particular purpose is not really chosen but selected as a result of external influence or even imposed upon the individual. Various circumstances may lead to such purpose designation. The achievement of such a purpose may or may not also be possible for that particular individual<sup>244</sup> (with each human being unique<sup>245</sup>).

The uniquely human need, however, to augment their information processing means that the setting of a new purpose for each human never stops.

## 9. On human nature\*

Comparison, and not conflict, is natural to humans. If this is the case, are humans by nature aggressive? Is human life by its nature 'brutish, nasty and short' as famously argued by Hobbes? Or, is it that of the 'noble primitive' of Rousseau? What is the true human nature?

Naturally, there can be no answer to this question—any response reveals more about its author's beliefs than any universally acceptable truth. In any event, from the approach of information processing, it is comparison, and not conflict, that is natural to humans.

Humans need to augment their information processing; augmentation, however, is always subjective and relative. It is subjective because humans have many (unsatisfiable) needs, each creating many purposes for information processing, and choosing (and prioritising) among them is subjective. In practice, some humans will strive for wealth, others for knowledge, others for experiences, others for relationships and so on.

It is also subjective, in the sense that it is individually assessed. Each human needs to augment his or her own information processing, to process new information with regard to him- or herself, and with regard to the processing the individual has achieved so far in life. Not, that is, with regard to the information processed by others, who may well already have processed that same information.

On the other hand, the augmentation of information processing is also relative,<sup>246</sup> because humans need to keep increasing their information pro-

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244 See par. 4.

245 See Chap. 2.1, par. 4.

246 See also par. 5.

cessing in the informational environment in which they happen to be at any given time, with the volume of information and the tools available (or even imaginable) to them.<sup>247</sup> This leads humans to compare their own information processing with the information processing of those around them.

It is comparison, therefore, that is innate to humans, precisely because humans need to augment their information processing and such augmentation is always individually assessed and relative to the processing of others.

Comparison leads to action (to the processing of new information). Even if unfavourable to any specific individual, for example, in cases where the gap in processing is perceived too large to cover in a lifetime, individuals will still try to improve their position. Humans need to augment their information processing, and they will do this following the example of others around them, who will in turn keep augmenting their information processing, *ad infinitum*.

Conflict may follow comparison, but it is only one of the possible outcomes. In other words, humans are not automatically set at birth on a collision course with each other. Conflict (and war) are just one possibility, depending on the environment in which they happen to live. In an environment of abundance there is no reason for conflict, but rather for competitive creation (this is the case today in the digital world). However, in an environment of scarcity (or one controlled by others, and thus limiting to some) the above can lead to conflict. Whether conflict takes place depends on the combined forces of need and opportunity.<sup>248</sup> However, because until now humanity has only known the analogue world, where information is finite, it is understandable that the idea of conflict being natural to humans has arisen.

## 10. \*

With the above in mind, whether humans are by their nature brutal or nasty or untrusting is beside the point in practical terms: although humans need to augment their information processing and will do so in any way they can, what information processing they can and cannot do in any given moment (i.e. how they act and behave each time) is dependent on their state.

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247 See also Chap. 25 on freedom.

248 . See Chap. 5.

A state<sup>249</sup> may, theoretically, apply no rules at all, thus allowing its citizens to satisfy their needs in whatever way they can; equally, a state may apply extensive regulations that limit its citizens' actions. An individual in the first state would appear brutish and nasty, while one in the second would appear reserved and self-controlled. The character of each human being (as undecipherable) as it is, and states having always accompanied humans, how individuals actually (materially, externally) behave each time is the work of their states.

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249 Basically, its government, the state having no will of its own (see Chap. 11, par. 8).