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Figurational Social and Cultural Sciences (V)

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Abstract:
After a discussion of strong criticism made of a statement and of the work of Norbert Elias during a sociological conference in 1981 in Amsterdam, the Netherlands, it is indicated that this series of articles does not include so-called 'biologisms.' Afterwards, attention is paid to the book Anthropogenese by Anton Pannekoek with (further) hypotheses concerning 'detours' in thinking' and 'detours in action' in hominin and human behavior involved in the tool use by hominins and humans. Related to this, work by Dieter Claessens on the history of using tools is also discussed, as an introduction to Frans Veldman's hypotheses about haptic qualities of hominins and humans. For example, people can 'feel' through tools and objects that they hold in their hands, thus shifting the boundary between 'inside and outside the body' outwards, incorporating living beings and inanimate objects into their self-experiences, as it were.

Keywords: *Paul Alsberg (1883-1965); Godfried van Benthem van den Bergh (1933); Anton Blok (1935); Dieter Claessens (1921-1997); Hans Peter Duerr (1943); Norbert Elias (1897-1990); Hans Wilhelm Carl Friedenthal (1870-1942); Wilfried Gottschalch (1929-2006); Johan Goudsblom (1932-2020); Hugh Miller (1891-1981); Anton Pannekoek (1873-1960); Ger Teitler (1942); Frans Veldman (1921-2010). Figurational sociology; Figurational social and cultural sciences; Allgemeinempfindlichkeit (general sensitivity); Körperausschaltungsprinzip (principle of body-liberation).*

Introduction: Criticism of Norbert Elias

The German social scientist and andragologist Wilfried Gottschalch has strongly criticized the work of Norbert Elias in his 1985 Dutch book *Sociologie van het Zelf* (Sociology of the Self). In his discussion of Elias's theory of civilization, Gottschalch responded to Elias's ideas concerning the "prevailing sociology" as well as to Elias's accusation that sociologists such as Max Weber or Talcott Parsons and even neurologist Sigmund Freud promoted a human image of *homo clausus* in their works. In this series' previous articles (Staring, 2023abc, 2024a) we have established that no figurational sociologist, anthropologist, or historian has recognized the importance of the question of how people use, carry and move themselves in everyday situations. They therefore do not investigate the interrelated sociogenesis, psychogenesis *and* physiogenesis of how people carry, move, use and experience themselves. For researchers from the 'Amsterdam School of Sociology,' the investigations into the *homo clausus* self-experiences of people in West European societies referred to by Elias only cover sociological and psychological areas, and their possible 'double-bind processes' in Eliasian terminology (Elias, 1987, p. 48; see Staring, 2024). Research into its *physio*genesis, and possible 'double-bind processes' with sociogenetic and psychogenetic developments in the self-experiences of people in the past and in the present in Western European societies, does not exist at all in the school of 'Figurational Social and Cultural Sciences.'

(By the way, Gottschalch, who took issue with Elias's above-mentioned criticism of the prevailing sociology, had not learned anything from Elias, because he stated, "Freud certainly did not imagine man as a homo clausus" (Gottschalch, 1985, p. 73; translation J.S.). After all, Elias' civilization theory is not about 'man' as a species, but about people.)

Gottschalch had even more objections to Elias' civilization theory. He declared, among other things, that Elias had neglected historical changes in the use of violence. According to Gottschalch, certain shifts in people's use of violence have occurred over time:

> Here those shifts in the use of violence should be examined which result in the violence of 'civilian' leading groups in society not being reduced but being delegated to the military and police. External and internal colonization made possible a division of labor not only between civilian and military elites, but also between service to the nation and retirement: in service harsh colonial civil servants or cruel SS-leaders, in leisure respectively retired gentleman or '*Bildungs*'-civilian. (Gottschalch 1985, p. 74; translation J.S.).

Note that the first part of this comment had already been widely addressed by Elias himself and others. I need only refer here to the dissertation of Dutch military historian Ger Teitler (1974), or to his collection of essays on violence, resistance and military organization (Teitler, 1972), or to a work by Dutch political scientist Godfried van Benthem van den Bergh (1980). The second part of Gottschalch's comment, on the other hand, contains much truth. Yet Gottschalch did not really grasp Elias's statements about the use of violence. To illustrate, I quote from a book review by Van Benthem van den Bergh:

> Although the formation of states as we know them today was itself the result of a long violent struggle of elimination […], the process meant that violence within the state territory was greatly reduced, while it could become massive and more intense, among other things, through the formation of standing armies between states. This only became apparent with the *levée en masse* during the French Revolution, which led to the introduction of conscription in the nineteenth century. (Van Benthem van den Bergh, 1987; translation J.S.).

In fact, the same is stated here as what Gottschalch (1985, p. 74) quoted from the work of Salomon-Delatour to strengthen his argument: "From the outside a predatory state, from the inside the rule of law." And Teitler (1972) too explicitly addressed the problem of the use of violence by people mentioned by Gottschalch, coming from more 'state-ized' societies against people in less 'state-ized' societies.

We cannot therefore hold Gottschalch's comment as a remark that invalidates Elias' theory of civilization, but rather as a confirmation of it (see *Note 1*). Elias expressed himself on the subject of "cruel SS-leaders" in connection with processes of intra- and interstate violence in his *Humana conditio* (Elias,1985), and also, indirectly, in his *Studien über die Deutschen* (Elias, 1989). Gottschalch's criticism on this point does not need to be discussed further here. Yet Gottschalch had even more strings to his bow to combat Elias' civilization theory. For example, he stated, "Elias describes the civilizing process as a linear development […]" (Gottschalch, 1985, p. 74). This is a recurrent misconception of Elias' theory. It is believed that it can be distilled from Elias's main work that the civilizing process as described by him proceeds in a linear manner or may even be valid to the same extent for all people and/or sections in Western European states. These are evident misconceptions. Periods can be distinguished in which these processes 'accelerated' (compare the first two episodes in this article series: Staring, 2023ab), but also periods in which civilizing processes 'evolved' to a lesser extent. Elias himself said,

> Strong retroactive movements are certainly not inconceivable. It is sufficiently known that the conditions of life in World War I automatically enforced a breakdown of some of the taboos of peacetime civilization. In the trenches, officers and soldiers again ate when necessary, with knives and hands. The threshold of delicacy shrank rather rapidly under the pressure of the inescapable situation. (Elias, 1978a, p. 125).

Elias (1981, 1986) had raised homogeneous issues several times. Gottschalch's criticism (above) therefore makes no sense. However, it is also interesting to note that some forms of behavior appear at first glance to be violations of civilized behavioral taboos, such as some forms of violence during ball games, while these forms cannot be branded as (expressions of) regression. After all, in such cases there is no

complete return to previous norms, but only a more or less increased degree of misconduct within the applicable norms.

Gottschalch (1985, p. 74; translation J.S.) had another comment on Elias' civilization theory in his *Sociologie van het Zelf*: "Furthermore: is the 'difference' between the 'civilized' and the 'primitive' indeed as 'clear and distinct' as it is stated on p. 239 of the second part [of Elias' Dutch edition of *The Civilizing Process*; J.S.]?" Gottschalch was not unescorted with this comment. For example, this point of criticism of Elias' work was given extensive attention — and was also accompanied by intense emotional outbursts — at a conference on civilization theories held in Amsterdam in 1981. In this context, Dutch sociologist Nico Wilterdink referred to Dutch anthropologist Anton Blok in his report of this conference:

> A cursory analysis of the concept pair *primitive-civilized* had led him to the conclusion that these and equivalent terms served to legitimize the dominance of one group (who called themselves civilized) over another (who were called primitive). (Wilterdink, 1982, p. 578; translation J.S.).

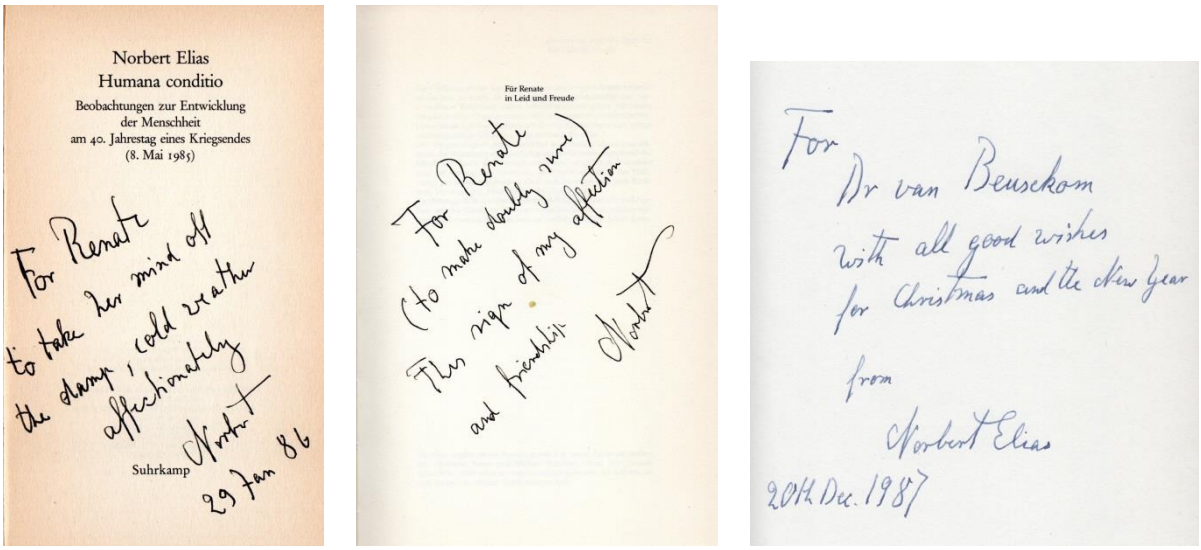


***Figure 1*: Norbert Elias' dedication for Dutch journalist Renate Rubinstein in *Humana conditio* (Elias, 1985).**
***Figure 2*: Elias' dedication for Renate Rubinstein in *Los der Menschen* (Elias, 1987b).**
***Figure 3*: Elias' dedication for Dutch Dr. J. A. H. van Beusekom in *Involvement and Detachment* (Elias, 1987a).**
(Jeroen Staring Collection).

In fact, Blok's criticism also applied to what Gottschalch indicated with his above-mentioned criticism about external colonization. At the conference, Blok referred to (such) power relations between colonizers and colonized. Wilterdink summarized,

> The concept of civilization, [Blok] emphasized in his further argument, is an indigenous category, bound by Western norms, prejudices, feelings of superiority; and this indigenous category cannot simply be converted into a sociological category, with which people's behavior and feelings can be characterized in a scientifically responsible manner. (Wilterdink, 1982, p. 579; translation J.S.).

Although some figurational sociologists took Blok's criticism seriously (for example Dutch sociologist Goudsblom), the 'correct' use of the concepts of civilization, civilized or primitive remained difficult to determine in scientific work during and after the conference in question. In any case, Blok went so far at the conference as to say that unfriendly use of these terms would have a racist tinge (see *Note 2*).

> Elias thus derives his general concept of civilization from specific Western, bourgeois-aristocratic notions of civilization. He uses the concept of 'civilization' as an indigenous category and — in the same sense — also as a sociological concept. He presents this concept as *emic* and *etic*, suggesting that it represents both an us and a them perspective. This ethnocentric approach can lead to the authentic humanity of other peoples being misunderstood — which is what happened in the lecture Elias gave during the conference on December 17 [1981; J.S.] in Amsterdam. He spoke about African

> peoples who had developed neither a state organization nor a writing system and lived "like wild animals in the jungle, always in danger of being caught." (Blok, 1982, p. 205; translation J.S.).

Well, the discussion about this will be had more often, but a statement by Elias such as "they lived like wild animals" can of course give rise to judgments such as that of Blok. Yet in this case one can perhaps partly agree Wilterdink's opinion, being,

> Elias' statement "they lived like wild animals" also had nothing to do with racism, because one must have been a very poor listener not to have understood that Elias was referring with this comparison to the *social conditions* under which people in non-pacified societies were forced to live. (Wilterdink, 1982, p. 581; translation J.S.).

It turns out, it proves to be a difficult and delicate point in Elias' statements about his theory of civilization. However: people live like people. Period. If Elias allowed himself to make such comments, then he deserved to be severely criticized. Wilterdink was right in a sense, but Blok was righter. Contemporary social and cultural scientists do not belong to the pre-World-War-II generation of scientists who apparently wished they could afford such nonsense. There were, of course, more criticisms raised at the conference in question:

- Criticism of Elias's use of sources, mainly with regard to the Middle Ages (this criticism is not relevant here).
- Criticism of Elias' statements about 'primitive societies' (this criticism is partly addressed above).
- Criticism of Elias' scant attention to the role of the clergy, of cities, of ecological conditions and of marriage arrangements in the entire civilizing process as expressed by him (this criticism is not very relevant here as well); and finally,
- Criticism of Elias's inadequate distinction between civilization and violence (this is briefly discussed above).

These issues were addressed in a special issue of the Dutch journal S*ociologische Gids* devoted to these critiques. Although the expressions of dissatisfaction with various themes from Elias's theory of civilization may be interesting and instructive for those interested, they are of little relevance here, since the *homo clausus* self-experience problem was completely ignored at the 1981 conference of the *Nederlandse Sociologische en Antropologische Vereniging* (Dutch Sociological and Anthropological Association). It is important to note here that many, including Gottschalch for example, have criticized various parts of Elias' work, but have also been offended by expressions of Elias that could easily be labeled racist — and not only by renowned anthropologists like Anton Blok.

Contemporary sociologists and anthropologists are sensitive to racism in words and images. This is understandable. After all, at the end of the penultimate century and the beginning of the last century, scientists knew the works of Darwin and other evolutionists, and later also the broad outlines of Mendel's genetics, but knowledge about the true causes of genetic inheritance remained hidden for a long time. Theories were adopted at that time stating that virtually all human behavior and virtually everything that can be observed and perceived about people's appearance is hereditary. Many citizens in 'civilized' cities of 'the West' were convinced that the desire to wander was hereditary, that the choice of mate was influenced by heredity, or that even the ability to rule over estates or the 'homeland,' or over the proletariat, was hereditary. Psychiatrists suggested that schizophrenia was hereditary, but to them so was alcoholism. Psychologists believed that people's IQ is hereditary, and to them so was the way people think and feel. This latter belief was also prevalent among anthropologists and other practitioners of the social sciences. Anthropologists were busy promulgating views that human 'races' exist, and that the basis for differences between 'races' must be sought in hereditary causes. In fact, every observable trait in humans, or every way of behaving, and every way of thinking, and so on, was due to hypothetical heredity. In defense of such statements, one could rely on nothing other than the application of statistical tricks. Usually, to substantiate one or the other, one relied on family studies, which almost always involved phenotypic matters. At the time, people had no knowledge of DNA, and all they did was juggle in a somewhat complicated manner with statistics, family studies about phenotypic matters, sometimes in combination with population studies, while they, extremely learned, pretended to have a monopoly on the truth. Scientists claimed to have proven

that almost everything about people is hereditary, and because in their view this was the case as they themselves claimed, and because they possessed the 'secret knowledge' about it, they felt like an intellectual *avant-garde* who could warn with 'scientific' evidence against the dangers that existed in almost all 'civilized' states in the Occident — but against which no effective measures could be taken at that time. With their nonsense, their misplaced statistics, their fallacies, and 'knowledge' not based on biological/biochemical facts, these scientists have sown the wind that was later changed into 'man-destroying storms' by eugenicists, racists, so-called 'racial hygienists,' or extremely prejudiced biologists, and Nazis and others (see *Note 3*).

I will not go into these matters in more detail here. It is understandable that current anthropologists and other practitioners of the human sciences would like to distance themselves in these matters from their brothers and sisters of a few decades ago. However, there is a danger in rejecting the study of eugenic, racist and 'racial-hygienic' literature. After all, if one does not search for the pitfalls that such 'scientific' theories contain in one's own analysis of such works — and 'defuse' them for oneself — one can react negatively — but not for detailed reasons. There will always be a gap to be detected in their own theory development, since one will not recognize in time the beginnings of ethnocentrism, or racism. The criticism that anthropologist Blok had on Elias' work must therefore be taken very seriously. Together with Blok, I am convinced that it is sensible to check every work for nonsense formulations, fallacies, racist statements, *etc*., because, for example, regardless of the context of the entire theory of Elias's *The Civilizing Process*, uttering a phrase such as "they lived like wild animals" during a scientific conference cannot pass muster. There are no people who live like wild animals; there are only people who live like people.

But there is more to it. Of course, one should avoid using indigenous concepts as much as possible when formulating general scientific statements. It is not without reason that Elias started *The Civilizing Process* with a chapter in which research into terms such as 'culture' and concepts such as 'civilized' in Germany, France and England is central. He, therefore, already at the start of his main work, gave an account of the concepts and terms he used in his descriptions of civilizing processes. He was well aware of the associations attached to such concepts in various countries. It was his well-considered intention to draw his readers' attention to the influence of such indigenous terminology in everyday life, and in the thinking and emotional world of the users of these concepts. Elias revealed many trends from a chaotic human history, through the attention-grabbing concepts of civilization, culture, civilized, *etc*. Note also that he, in his later works, also attempted to avoid the pitfalls inherent in the use of certain terms in the singular form through a more well-founded use of other terms. However, when revising his main work *The Civilizing Process*, he did not introduce such a more well-founded use of terms in the editions from the years '70s and '80s (Duerr, 1990; Schröter, 1990).

So, Blok is right, as stated above. Just as the study of mathematics involves looking for errors in other people's mathematical work, so the study of human sciences must involve looking for hidden prejudices, racist statements, discriminatory comments, and the like, in studies by fellow human scientists.

Taboo on Biologisms

Another aspect of this case was discussed in a short piece in the Dutch newspaper *NRC-Handelsblad*. Former commentator Schreiner of that evening newspaper stated that "the academic world" protects itself with a taboo on "biology:"

> He Anyone who tries to understand the academic taboo on biology — the all too understandable pursuit of tabooization after 1945 by groups that feel threatened is a completely different matter — cannot be done so quietly what happened here is to ignore the fact that Auschwitz, Treblinka and Sobibor — total barbarism — were the direct practical outcome of German scientific thinking — i.e. of one of the most important branches of Western European science […]. In this context, the question arises to what extent the academic taboo on biologism has a 'vicarious' character. That is to say: to what extent the discussion about the permissibility of biologism should help to avoid the actual discussion, namely the one about the how and why of the German academic disaster of the first half of this century. And about the question of whether and how a repetition of such a disaster can be prevented. As long as that discussion has not been had — and nothing indicates a willingness to do so

> — it may make sense to regard the taboo on biologism as a useful safety feature: self-protection of the academic world against a possible new temptation and protection of those groups that could again become victims of academic arrogance. (Schreiner, 1989; translation J.S.).

Anyone who has read this present series of papers about 'figurational social and cultural scientists' up to this point may have put question marks in the margin. Perhaps the thought has occurred that biologism statements are being offered here. This is understandable, because what is offered relies heavily on hypotheses about the biological-evolutionary development of humans as a species. It serves to fill gaps in Elias' civilization theory. And moreover, the intention is also to demonstrate "academic arrogance" which Schreiner pointed out (above). After all, the German anthropological literature of the beginning of this century, for example, is no longer studied at (Dutch) universities. There seems to exist a heavy taboo on such research. But as mentioned above: if you have no idea about that and other charged literature, you can fall into the same pitfalls that predecessors have already stumbled into. Below — from a sociological perspective — two examples of this statement are presented (successively from the work of Dutch anthropologist Jojada Verrips and from the work of Dutch sociologist Johan Goudsblom).

The taboo on biologisms is therefore not just, as Schreiner put it, to be regarded as "a useful safety feature: self-protection of the academic world against a possible new temptation." Sometimes the naivety that results forms the basis for new stupidities. After all, it appears from the foregoing that stupid statements about (other) people creep into theories of even a least biased scientist when one focuses only on sociological and psychological aspects of 'civilizing processes.' It is inherent to the research conducted, and inherent in the research methods used. In order to demonstrate differences between societies and the individuals who are part of these societies — and to explain them in a theoretical framework and to provide them with an unveiled history — one can only fall back on sociological and psychological concepts in said theories. And it is then that these theories can prove grossly and seriously flawed and lead to unsolvable problems, or even lead to prejudice or racism. Here it may already be hinted that the practice of figurational sociology and anthropology irrevocably leads to prejudiced and discriminatory statements about (other) people and (other) forms of society if one continues to refrain from a study of the *physio*genesis and of 'double-bind processes' between the *physio*genesis, sociogenesis and psychogenesis of *homo clausus* self-experiences of people.

Anton Pannekoek: *Detour in Thinking, Detour in Action, Detour in Brain*

In the first issue of the journal *Etnofoor*, Dutch anthropologist Jojada Verrips revealed the following:

> Nor have I been able to find a good term for it so far: the development of humanity over the course of history in a biological sense. For the long-term processes in that sense, *biogenesis* seems appropriate. Finally, I do not yet have an adequate name for the origin and development of the ways in which people (learn to) use their bodies in a (re)productive sense and communicative sense. Elias may have studied extensively the control of all kinds of physical movements from a socio- and psychogenetic perspective, but one will search in vain for a term for the genesis of specific body languages. Somagenesis may be useful in this context. (Verrips, 1988, p. 50; translation J.S.).

Verrips tried to introduce a neologism, a self-invented concept ("biogenesis") for the development of biological aspects of human history, *i.e.* for the development of biological aspects of anthropogenesis. Even if he meant only the "development of humanity over the course of history in a biological sense," then the use of the word "biogenesis" to indicate de development is not useful. It would be better to use the term *anthropophylogenesis*, because Verrips refers to the *phylogenesis* of the human species. Verrips made too much of it when he talked about "somagenesis," because then he returns to the terminology of German zoologist August Weismann who, in his theory of heredity, distinguished between "the germ cells, which carry the germ plasm (a hypothetical hereditary substance) and the body cells or the 'soma'" (Schellekens & Visser 1987, p. 23; translation J.S.).

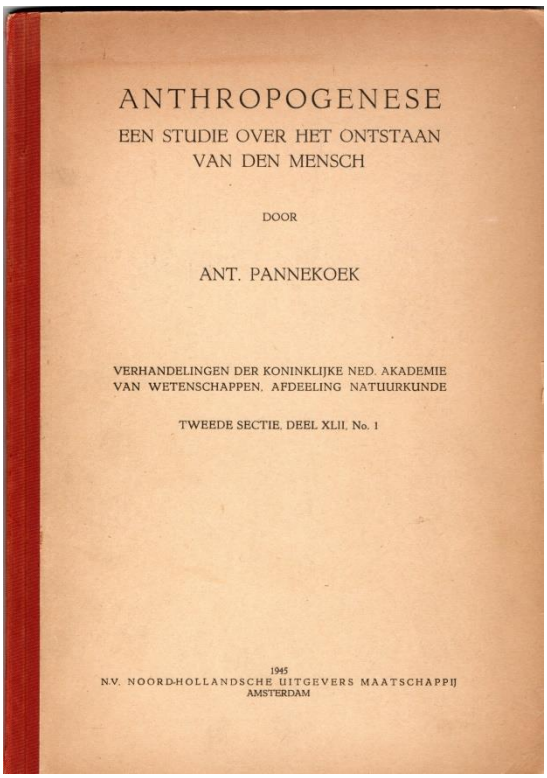
Furthermore, "the genesis of specific body languages" is not about a "somagenesis" at all; the same applies to "the development of the ways in which people (learn to) use their bodies in a (re)productive sense and communicative sense." Since the use of the phrase "somagenesis" refers to a distinction between cells introduced by Weismann in the 1880s, we may assume that Verrips was not referring to a distinction

between cells in the above quote. Such a distinction is not relevant to what he wanted to say. The answer to the question Verrips asked in the last line in the above quote ("Perhaps somagenesis is useful in this context") must therefore be: "No." In an endnote to the last line of the above quote, Verrips says: "You could also think of physiogenesis" (Verrips, 1988, p. 52). However, the concept of physiogenesis that I have forged never applies to what Verrips sees as a shortcoming in Elias' civilization theory (see *Note 4*).

Let us now move on to the psycho-physical aspects of tool use by hominins and humans. In his work entitled *Anthropogenese* (Anthropogenesis) from 1945, republished 12 years later as *Het ontstaan van de mens* (The Origin of Man), Dutch mathematician and astronomer Anton Pannekoek stated the following about the relationship between the use of tools and thinking:

> Choice already takes place in the beginning, when one does not yet have one's own-made tools, but unworked stones or sticks, offered by nature, are taken up; a first twilight of conscious thinking could then already arise. (Pannekoek, 1945, p. 35; translation J.S.).

Such a situation may have already occurred in *Australopithecus* individuals living in groups. I covered this in the previous article in this series (see Staring, 2024), when I hypothesized group and individual actions that might have occurred during, for example, threats of predators to the individuals of such a group, namely, throwing branches, sticks and stones in defense, deterrence or attack by members of the group at the predator(s). Such actions can be referred to as belonging to early forms of tool use.



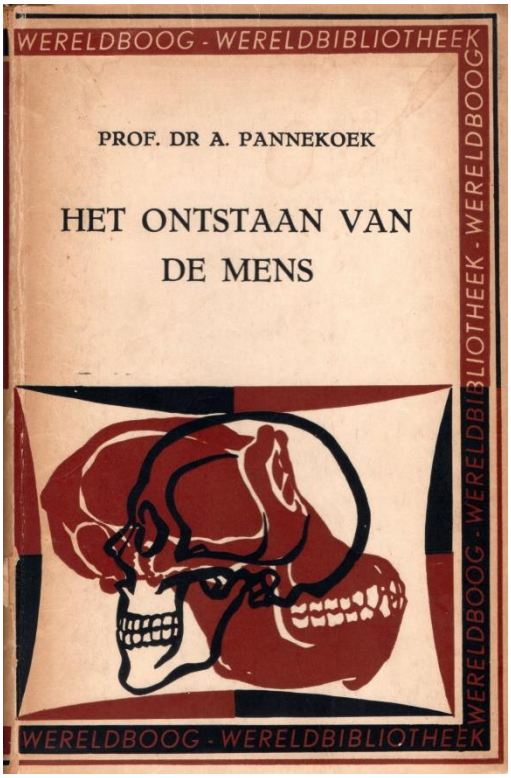


***Figure 4*: Front cover of Anton Pannekoek's 1945 *Anthropogenese*.**

***Figure 5*: Front cover of Anton Pannekoek's 1957 *Het ontstaan van de mens*.**

'Thinking actions' must have occurred corresponding to these actions. It is therefore plausible that the 'thinking actions,' the virtual manipulations of representations and symbols, of the users and makers of these stone or wooden tools came to a different level than in *Australopithecus* individuals in defense and/or deterrence and/or attack activities in the case of only being able to manipulate objects like branches, sticks or stones and merely grabbing such objects and aiming them at 'the enemy.' Pannekoek had already written about this in 1909:

> Just as thought inserts itself between sensory perception and action, so the instrument inserts itself between man and the object he wants to grasp. Moreover, *because* an instrument inserts itself between him and the thing outside him, *therefore* thought must also insert itself between perception and

> execution. Because man does not immediately focus his body on the target, e.g. the enemy animal or the fruit, but takes a detour and first grabs the tool or weapon with his hand (weapons are also tools) and then applies this tool to the fruit, directing this weapon against the animal, therefore in his head the sensory perception may not immediately be followed by the immediate action, but the mind must also take a detour: he must first focus from the impression of the senses on the tool, the weapon, and from there arrive at his goal. The physical detour produces the mental detour, the additional thought is a necessary consequence of the additional tool. (Pannekoek, 1909, p. 48; translation J.S.).

In fact, in the time span of about one and a half million years (presumably between 4 to 3½ million years ago and 2½ million years ago), an evolution must have occurred at different levels: in the 'ability' to actually manipulate objects, and also in the 'ability' to virtually manipulate representations of objects. In such situations, individuals who were part of such 'groups' were exposed to coercions from other group members. They had to be able to inhibit impulses to respond directly to stimuli at social and brain levels. Therefore, new pathways to new behavior and new actions — differing from meeting the urge to escape and flee — must have been evolved at social, mental and brain levels. This involves, as we have already seen, the 'ability' to (more or less) consciously inhibit impulses that lead to instinctive, direct, immediate reactions to sensory stimuli, and the 'ability' to create and expand new pathways, detours, at the physical level of nerve cells that stimulate each other within the existing structure of the brain. These detours have led to (more or less) conscious, indirect, *i.e.*, mediated responses to sensory stimuli.

If we now focus on the psycho-physical development of tool use, it may be assumed that this could only have evolved thanks to living together in groups. Pannekoek continued his story about the relationship between tool use and thinking:

> However, the independence of thought first takes place when foresight of the effect leads to preparation in advance, i.e. when man makes his tools. The subsequent action, the use of the tool, must already be thought through and prepared before the necessity of the situation or the event forces the action. Here the action splits into two completely separate parts; the making of the tools, as preparation, as the first half of the whole, becomes a provisionally concluded independent act. Here too, thinking must independently build up its chain of representations, autonomously, starting from itself, apparently without a direct impulse from outside, nourished by the memory images of past experiences. Thus, from the necessity of developing the tool apparatus in advance, a world of thought grows up as man's own spiritual life, as a theoretical summary of all experiences, as a source of all further conscious action. (Pannekoek, 1945, p. 35; translation J.S.).

Attention has already been paid to this aspect when I pointed out the assumption that hominins living together in groups most likely had a brain structure such that the memory of past events could be directly linked to sensory perception processes of social coercion of other group members. In the above quote, Pannekoek makes it seem as if the development of thought processes could occur "apparently without a direct impulse from outside." But always and everywhere, from the very beginning until now, one cannot and should not separate the evolutionary and individual development of thought processes from the fact that hominins and humans were and are social beings from birth to death, and that every development of thought processes is based in any case on sensory perception processes of social coercions-from-others. Yet, in 1909 Pannekoek had already stated, "Due to its origins, this being brought with it the two main conditions for higher development, *social coexistence* and the *monkey hand*, which was suitable for grasping objects" (Pannekoek, 1909, p. 51). Indeed, foresight and planning, the manipulation of images and symbols, is not possible without the sensory awareness of the coercion imposed by others. After all, the tools ultimately produced always serve social purposes. No attention is paid to the character of 'social coercion' in the development of thought processes by any author speaking on paleoanthropology. But in this very fact lies a key that fits in the lock of the gate of understanding. I do not want to go into the evolution of thought and all related matters here; I want to focus on what Pannekoek described in the following quote:

> The use of tools has a new strong influence on the organs of perception and consciousness and thus on mental life. It provides a new experience of the outside world. The fine sense of touch of the fingers now comes into action in clasping and directing the tool with which the outside world is acted upon, in the actions of hitting, pressing, rubbing, drilling. It is an aggressive impact, an attempt to change her. The outside world works backwards, its resistance must be overcome and is received by the hand

> as a sense of touch. Because intensity is felt and measured, this is a very different use of the sense of touch than just perceiving the spatial environment for orientation. […]. The experience of using tools speaks as an active expression of life force, awakened by the need for life, much more intense and penetrating than the passive experience of the impressions of the other senses. […]. In addition to the sense of touch, the muscle sensation occurs that shows an organism, through the countless recurrent nerve fibers, its own movements. During the effort of the muscles, when working with the tool, when during the blow with an ax or hammer the moment of the arm through the handle is increased, the connection between the perceived effect of living force and the felt, precisely balanced energy used provides a rich source of new experiences of the world. (Pannekoek, 1945, p. 36; translation J.S.).

Here is described very graphically, but still somewhat misleadingly, a process that began 'innocently' about 3½ to 4 million years ago and has continued to this day, 'full of guilt.' It is clear that many mutually reinforcing 'double-bind processes' (in Eliasian terminology) between tool production and using tools and sensory perception processes have emerged and have evolved to a high degree of differentiation and coordination over this time period. In the above quote, Pannekoek pointed out, somewhat encrypted, interactions between tool use and the sense of pain of hominins/humans; interactions between tool use and the sense of pressure of hominins/humans; interactions between tool use and the weight sense of hominins/humans; interactions between tool use and the vibration sense of hominins/humans,; interactions between tool use and the stretch sense of hominins/humans; interactions between tool use and the tonus sense of hominins/humans; interactions between tool use and the equilibrium sense of hominins/humans, interactions between tool use and the optical sense of hominins/humans; and interactions between tool use and the acoustic sense of hominins/humans — according to the classification of Dutch haptonomist Veldman (1977). We can further suggest that there are also interactions between tool use and the temperature sense of hominins/humans; or interactions between tool use and the gustatory sense of hominins/humans. And eye-hand coordinations, so often praised in the literature, actually involve mutually reinforcing 'double-bind processes' between the motor skills of hominins/humans (manipulating objects) and the almost entire sensory system of hominins/humans (sensory sensations via the pain sense, via the pressure sense, via the stretch sense, via the tonus sense, *etc*., and not just the sensory sensation via the optical sense).

What Pannekoek sketched so vividly happened over a period of time of thousands of generations. Very, very slowly changes evolved. We can somewhat imagine this. Every little innovation in the techniques of manipulating objects and tools, so at a different level: every little innovation in the virtual manipulation of representations and techniques, which in any way represented an improvement compared to the pre-existing manipulation techniques, and therefore in some way benefited the individual in question, and therefore could also in some way or other benefit the group to which the individual in question belonged, will have had a great chance of being imitated and learned by other group members, who in turn transferred it to other (for example younger) group members. This then became part of the range of survival techniques of the group of individuals, once it became part of the social fund of knowledge of the group members. In the words of Pannekoek: "The knowledge of the use and manufacture of tools in such groups is collective knowledge, is communal property" (Pannekoek, 1945, p. 9; translation J.S.). And further, "The whole group benefits from the experience of each of its members" (Pannekoek, 1945, p. 26; translation J.S.).

After so many finds of stone tools, ranging from rough stones with only a few flakes visibly missing to polished axes, from pointed chippings to beautifully pointed arrowheads, from scrapers to razor-sharp stone flakes that were once part of large rasps, we can now say that there have indeed been very gradual improvements and refinements, and ever-evolving nuances in the techniques of tool making and of using tools. We can also imagine that these mutually reinforcing 'double-bind processes' in Eliasian terminology thus led to the differentiation of the senses, and also the coordination of sensory perceptions, and the differentiation of motor skills, and also the coordination of the body as an acting unit in addition to and in synchrony with the coordination of the specific manipulation act of objects or tools in question must have reached higher (and ever increasing) levels of integration. In mutually reinforcing 'double-bind processes' of increasing and refined tool use and increasing and refined differentiation and coordination of sensory perceptions, and motor skills of the tool users, an evolution, with all its 'ups and downs,' has occurred in the controlling and steering of the human body as a whole, and in the controlling and steering of parts of the

human body specifically used to manipulate objects and tools. (Note that the role that people's furlessness (naked skin) plays in this evolution will be discussed in the next installment of this article series.)

Tools can differ in size, shape, function, and so on. But tools, apart from hominins and people, are just 'loose' objects. Only in the hands of hominins and people do tools have (had) meaning. Pannekoek described this very remarkably:

> The tool is held in the hand and thereby made into an effective tool in the struggle for existence. Together with the hand it has become a complete whole, a body organ, a working force. The hand with the tool clamped in it performs the same function that the body organs perform in the animal, namely performing such actions as are necessary for life. Organon means tool; the organs are the fused tools of the animals that belong to the body; the tools are the organs of man detached from the body. Instead of the many organs of animals, each suitable for its own different function, the hand acts as a general organ in humans; by alternately clamping different tools for different functions, the hand-tool combination replaces the various animal organs. (Pannekoek, 1945, p. 7; translation J.S.).

In the previous article in this series, we discussed in some detail the ideas of the German anthropologist Dieter Claessens (see *Note 5*). The *Körperausschaltungsprinzip* (principle of body-liberation) described by him — following Paul Alsberg (see *Note 6*), another German anthropologist — involves the beginning of all the above-mentioned 'double-bind processes' between tool use and body use of tool users. We have also paid attention to the hypothesis that states that the development of social coercions to inhibit instinctive flight and flee compulsions can be seen as one of the reasons for the fact that hands and teeth of hominins did not 'specialize' as defensive and/or deterring and/or attack organs. It now appears that instead the hands of hominins and humans have been used, in an intermediate sense, as defensive and/or deterring and/or offensive organs. The use of tools took the defensive, deterrent or offensive battle at a distance — namely with extra-corporeal means to another level. And since we can imagine the process of development of tool use by hominins and humans as a process that, once developed and more or less 'established,' we can imagine that mutually reinforcing interactions at social, mental and physical levels had co-evolved, and that the existing tendency *not* to 'specialize' in dangerous claws and dangerous teeth had actually been reinforced. Depicted in philosophical terms: the *Insulationsprinzip* (insulation principle) worked optimally in this regard. As this process progressed, through mutually reinforcing 'double-bind processes' at social, mental, and physical levels, the more dependent hominins and humans became on their tools, and the more necessary tool use became in the social fund of their survival strategies. Of course, we are talking here about processes that spanned many thousands of generations. Within the social *uterus* of 'the group,' within this *ecological niche* in Claessens' terminology, a very remarkable 'meta-specialization' occurred. Hominins and humans possessed more and more, through just one organ, multiple 'organs.' In the following quotes from Pannekoek this phenomenon is poetically described (see also *Note 7*):

> Man is, as it were, an animal with interchangeable organs. And therefore, h*e must also have the ability to choose between his tools*. In his mind he goes through various trains of thought, turning his mind in turn to each of his tools and considering what effect each has: according to the result of his consideration he chooses his action. He fits, as it were, into the chain of thoughts that leads from his sense impression to action, alternately inserting different thoughts as substitutes and finally retains the thought that best suits the purpose. Deliberation, the free comparison of a number of self-chosen series of thoughts, this essential distinguishing feature between animal and human thinking, is immediately connected with the use of tools to be chosen at will. (Pannekoek, 1909, pp. 49-50; translation J.S.).

> So, Man does not have one tool, but many. Every time he takes another tool in his hand, it becomes another organ. Man is an animal with interchangeable organs. (Pannekoek, 1945, p. 9; translation J.S.).

This phenomenon had wonderful counterparts at the sensory level: hominins and humans refined their haptic abilities. Physiotherapist Veldman pointed this out in his book *Haptonomie* (Haptonomy) where he divided these 'abilities' into two categories: the so-called *rational* haptic abilities, and the so-called *affective* haptic abilities. I will only briefly discuss the first category here. Veldman defined *rational* haptic abilities as follows:

> Rational abilities distinguish themselves in that they have rational-functional existential qualities that are important for self-existence and self-preservation. They play an important role in dealing with objects, handling utensils and instruments, moving within space and spatial interaction with others. (Veldman, 1988, pp. 291-292; translation J.S.).

Note that Veldman distinguished two kinds of *rational* haptic abilities: *Assensus* and *Circumsensus*. The first is, as it were, an ability to incorporate dead or living objects into self-experience via a mainly sensori-motor route; the second involves the haptic ability to sense spaces around the self/body. In the phraseology of the founder of haptonomy,

> *The Assensus represents a specific* […] *tactile ability of higher living beings that man can rationally dispose of in handling objects and in physical contact with others*. This contact ability is based on the disposition to functional extension of the body with the objects that humans use or interact with through physical contact. […]. — the simple, basic, «body extension» — is a perceptive-sensorimotor function of the body which enables humans to integrate the objects they interact with into their kinesthetic bodily functionality. (Veldman, 1988, p. 294; translation J.S.).

What Veldman was referring to here is that when humans touch something or take something in their hands, they can, as it were, feel through the hand beyond the objects touched by them. Veldman referred as an example to hammering a nail into the wall. Through their hands, through the hammer and through the nail, they feel the wall:

> The hammer and the nail, the arm and the hand, form one whole in kinesthetic sensations. The body has extended through the hand with the hammer to the nail tip. […]. The objects handled are in a sense temporarily united with the body into a unity. (Veldman, 1988, p. 295; translation J.S.).

For example, when a blind person uses a stick for orientation, this object is, as it were, incorporated into the blind person's self-experience. Another example: someone with an artificial arm can perceive 'through' the prosthesis. Veldman did not provide a history of these 'abilities' in his work, but with the above in this chapter still fresh in our minds, we can imagine that it is precisely this 'ability to incorporate' that has become very efficient during the genesis of tool use and has developed to a high, integrating level. Humans can caress someone with a one-and-a-half-meter long stick. Under a microscope, as it were, they can manipulate an extremely thin needle in a cell, and through computer equipment they can 'manipulate' projected holograms. How wonderful is all this. Of course, such 'abilities' rely largely on sensory sensations from the sense of touch.

When we consider the shape and number of tactile *papillae* and tactile balls comparing the human hand with that of, for example, monkeys, we will notice how much the human hand is focused on "*Allgemeinempfindlichkeit*" (general sensitivity) while monkey hands seem more equipped for special tasks (such as climbing) because the tactile *papillae* and tactile balls are found only in certain areas of the hands and digits of monkeys (which make a lot of contact with branches, for example). The German physiologist and anthropologist Hans Friedenthal (no date, pp. 74-87) linked this special "*Allgemeinempfindlichkeit*" of human hands to the use of tools by human hands in contrast to "*örtliche Feinfühligkeit der Haut*" (local sensitivity of the skin) in monkeys and as opposed to using the front limbs by monkeys and primates in "*Ortsveränderung des Körpers*" (changing the location of the body).

But of course, haptic abilities do not include sensory sensations from the tactile senses alone. And the haptic 'abilities' mentioned by Veldman form only part of the mutually influencing, reinforcing and integrating 'double-bind processes' described above on social, mental and physical levels. Thus, the experiencing of living or inanimate objects located outside the self/body of hominins and humans has changed in quality during the process of development and 'establishment' of tool use. Inanimate and living objects outside the self/body could and can be qualitatively more and more 'incorporated,' as it were, by means of the — in philosophical terms — *Körperausschaltungsprinzip* (principle of body-liberation) as described by Paul Alsberg and Dieter Claessens. In essence it is quite paradoxical. Through the use of extra-corporeal means, the extra-corporeal world became a (socio-)psycho-physical part of the self-experiences of hominins and humans.

Every generation of babies, toddlers, children and young hominins and humans had to learn the skills of trained tool users. Parents learned how to demonstrate and teach their skills to help the younger generation learn the skills from them. It is very likely that so-called mirror neurons in the brains of hominins and humans have played a major and ever-increasing role in these imitation and learning processes of the elderly as well as the young, of group members, through social coercions and communal help, in fact through all educational paths we can imagine (see *Note 8*).

And what does all this mean to gain insight into the *homo clausus* self-experiences of current people in Western European societies? What do figurational social and cultural scientists have to teach us? Recall that in the last quote from the work of Norbert Elias, presented in the second paper in this series, the following sequence of questions was asked by him: "Is the skin the wall enclosing the true self? Is it the skull or the rib-cage? Where and what is the barrier which separates the human inner self from everything outside, where and what the substance it contains?" (Elias, 1978b, p. 119). Now, seeing these questions again, they may be difficult to answer. Actually, they were wrongly formulated by Elias. He should have made more effort. It now appears that he had not delved too deeply into the matter. He was probably too fixated on the sociogenesis and psychogenesis of *homo clausus* self-experiences of people in Western European societies and did not consider making a study of its *physio*genesis. That's why he could never even think of the right questions, no matter how long he would think. Both Pannekoek and Veldman have pointed out in their work that, together with tool utilization and the associated combined experiences of the extra-corporeal world that was/is gained by the respective tool users via (mainly) the sense of touch (but not only via touch, but in fact through many senses) parts of the extra-corporeal world were/are incorporated in the self-experiences of the respective tool users. Elias could not find an answer to the questions he asked, quoted above. He did indeed ask questions relating to the (bio)physical aspects of lives of hominins and humans but paid virtually no attention to them in his work. When we look at the evolutionary processes from early hominins to humans in hypotheses as above, it appears that in the course of the anthropogenesis the ability has been developed to — as it were — incorporate parts of the extra-corporeal world mainly through the hands (the ability can also extend through other body parts). The experiences gained through this, form parts of the self-experiences of tool users. Through *Körperausschaltung* 'distancing techniques,' the ability has been developed to transform parts of the extra-corporeal world, as it were, for a shorter or longer period of time into parts of the body of the tool user.

In the upcoming installment of this series various hypotheses about the use and control of fire and smoke, and of furlessness in humans will be discussed, which will show that figurational social and cultural scientists did not pay any attention to Elias' questions at all in their discussions of *homo clausus* self-experience problems.

Notes

1. It may be perhaps necessary to make some adjustments to Elias' theory of civilization. For example, it may be well imagined that a critique could be written comparing Elias' theory with the civilization theory of the Brazilian anthropologist Darcy Ribeiro (1971). Peter Burke, a British historian, put it well when he discussed Elias' work as follows:

> It is even more important to add that long before the vogue of modernisation theory in the 1950s, Norbert Elias had published a study of what he called the 'sociogenesis of Western civilisation' […]. Elias distinguished 'two main directions in the structural changes of society . . . those tending toward increased differentiation and integration, and those tending toward decreased differentiation and integration'. He had a good deal to say about the mechanics of change, noting, for example, that social integration was an unintended consequence of the competition for power between small states in the Middle Ages. If he analysed social development in essentially internal terms, he looked at it on a European scale and was aware of the impact of one region on others. (Burke, 1980, p. 88).

One can interpret this neutrally as containing a compliment, but you can also see it as a sneaky criticism: not global, only European. I would also like to refer here to the work of Duerr (1988, 1990), which discusses the issue in great detail.

2. Compare Wilterdink, 1982, pp. 578-583. Compare also the judgment of Duerr, 1990.

3. Compare Müller-Hill, 1981, 1984; Noordman, 1989; Proctor, 1988; Schellekens & Visser, 1987. Compare also the upcoming Part *VI* in this series about 'figurational social en cultural sciences.'

4. I object to Verrips' equation of the two concepts because I believe that the concept of physiogenesis (which I coined), and its content, should not be linked to a concept that falsely pays tribute to August Weismann, honorary member and first honorary president of the German *Gesellschaft für Rassenhygiene* (Society for Racial Hygiene; see Fischer, 1930, p. 2). Many of the early members of this 'racial hygiene' society had been students of Weismann and had been instrumental in its development since its founding in 1905, spreading eugenic and 'racial hygiene' nonsense. Later, these people such as Fritz Lenz and Eugen Fischer had a major influence on the development of the so-called Nuremberg Race Laws in Nazi Germany (Gütt, Rüdin, & Ruttke, 1934). Fischer, for example, was involved in its implementation. In 1933, he bragged, in *Schulungsbriefe des Reichsschulungsamtes der NSDAP und der Deutschen Arbeitsfront*, that "The National Socialist revolution will one day reap the thanks of all of Europe for making racial and hereditary care the provider of a real population policy" (Fischer, 1933, p. 81; translation J.S.).

Here I can only state that from the foregoing it may be clear that I pay attention to the *physio*genesis of the *homo clausus* self-experience of people in Western European societies, and not to ideas about "body language."

By the way, Verrips had heard the about the concept of physiogenesis from a Nijmegen anthropologist who was part of the editorial staff of the anthropological journal *Focaal*. At the conference '*Geschiedenis in antropologisch onderzoek*' (History in anthropological research), held on April 10 and 11, 1987 in Plasmolen, the Netherlands, she proposed to Verrips to replace his "somagenesis" with "physiogenesis." In the performance of her position at the journal *Focaal* she was familiar with the concept "physiogenesis," since my paper '*Sociogenese, psychogenese, fysiogenese*' ('Sociogenesis, psychogenesis, physiogenesis;' see Staring, 1987b) had — in the summer of 1986 — been submitted to *Focaal* for assessment for publication in the journal. At the time that she passed on "physiogenesis" to Verrips, my article had not yet appeared in print.

5. See Staring, 2024. See also Claessens, 1970, 1980.

6. See Alsberg, 1922, 1937, 1970.

7. It is striking that in socialist circles attention was paid to (to put it poetically) the human hand as tool-of-tools. It seems that in the educational circles of socialists at the beginning of the last century there was a desire to give manual labor a long history through a suitable cross between Darwin and Marx; see, for example, Pannekoek's 1909 essay. Pannekoek was not alone to describe this so succinctly. For example, a work by German psychologist and sociologist Franz Müller-Lyer has the following text: "Through the hand man possesses a multitude of organs — as many as he possesses tools — without being a monster like the hundred-armed Japanese goddess Kwan-won" (Müller-Lyer, 1924, p. 37; translation J.S.).

8. Compare Arbib, 2011, 2018; Arbib & Bonaiuto, 2008; Blažek, Brůžek, & Casanov, 2011; Bonini, Rotunno, Areuri, & Gallese, 2022; Cook, Bird, Catmur, & Heyes, 2014; Ferrari, Bonini, & Fogassi, 2009; Ferrari & Rizzolatti, 2014; Hamilton, 2015; Heyes, 2010; Heyes & Catmur, 2022; Rizzolatti & Craighero, 2004. Also, Armstrong, 2008; Fogassi & Ferrari, 2007; Ramachandran, 2022; Suzuki, Banno, Miyakawa, *et al*., 2015.

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