



LUND UNIVERSITY

Semiosis beyond signs: on two or three missing links on the way to human beings

Sonesson, Göran

Published in:
The Symbolic Species Evolved

2012

[Link to publication](#)

Citation for published version (APA):

Sonesson, G. (2012). Semiosis beyond signs: on two or three missing links on the way to human beings. In T. Schilhab, F. Stjernfelt, & T. Deacon (Eds.), *The Symbolic Species Evolved* (pp. 81-96). Springer.

Total number of authors:

1

General rights

Unless other specific re-use rights are stated the following general rights apply:
Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

Read more about Creative commons licenses: <https://creativecommons.org/licenses/>

Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

LUND UNIVERSITY

PO Box 117
221 00 Lund
+46 46-222 00 00

Metadata of the chapter that will be visualized online

Chapter Title	Semiosis Beyond Signs. On Two or Three Missing Links on the Way to Human Beings	
Chapter Sub-Title		
Chapter CopyRight - Year	Springer Science+Business Media B.V. 2012 (This will be the copyright line in the final PDF)	
Book Name	New Perspectives on the Symbolic Species	
Corresponding Author	Family Name	Sonesson
	Particle	
	Given Name	Göran
	Suffix	
	Division	Centre for Cognitive Semiotics
	Organization	Lund University
	Address	Lund, Sweden
	Email	goran.sonesson@semiotik.lu.se

Abstract	Human beings are special in mastering, apart from signs, a number of semiotic resources embedded already in perception, which is not differentiated, but which may still be iconic, indexical, or symbolic. The sign is no doubt one of the missing links between human beings and other animals. An even earlier breaking point between (some) animals and human beings may be the ability to distinguish type and token, that is, to have access to a principle of relevance. Somewhere on the border between relevance and the sign is found the act of imitation. The Peircean sign, which is so much more (and less) than a sign, may be able to account for the emergence of imitation and its accomplishment in the sign function, in the restricted sense.
----------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Chapter 5

Semiosis Beyond Signs. On Two or Three Missing Links on the Way to Human Beings

Göran Sonesson

Abstract Human beings are special in mastering, apart from signs, a number of semiotic resources embedded already in perception, which is not differentiated, but which may still be iconic, indexical, or symbolic. The sign is no doubt one of the missing links between human beings and other animals. An even earlier breaking point between (some) animals and human beings may be the ability to distinguish type and token, that is, to have access to a principle of relevance. Somewhere on the border between relevance and the sign is found the act of imitation. The Peircean sign, which is so much more (and less) than a sign, may be able to account for the emergence of imitation and its accomplishment in the sign function, in the restricted sense.

Contemporary studies of evolution suggest that not only human language, but also the capacity for using pictures, as well as many kinds of mimetic acts and indices, are (at least in their full, spontaneously developed form) uniquely human. It is clear that semiosis itself must be manifold and hierarchically structured, in ways not yet dreamt of in our philosophy. In order to grasp some of the discontinuities between human beings and other animals, it is useful to start out from the conception of phylogeny suggested by Merlin Donald (1991, 2001), which may be supposed to have a least some rough parallels in ontogeny.

In Donald's evolutionary scale, stages of episodic, mimetic, mythic and theoretic culture correspond to types of memory (Fig. 5.1). According to this conception, many mammals, which otherwise live in the immediate present, are already capable of episodic memory, which amounts to the representation of events in terms of their moment and place of occurrence. The first transition, which antedates language and remains intact in language impairment (and which Donald identifies with *homo erectus* and wants to reserve for human beings alone) brings about mimetic memory, which corresponds to such abilities as tool use, miming, imitation, co-ordinated hunting, a complex social structure and simple rituals. Without even taking into account intricate phenomena such as social structure, ritual, and hunting, one cannot avoid observing the heterogeneity of this list: in some cases, such as most clearly tool use and some instances of imitation, no sign structure, with a clear distinction

G. Sonesson (✉)

Centre for Cognitive Semiotics, Lund University, Lund, Sweden

e-mail: goran.sonesson@semiotik.lu.se; grnsonesson@gmail.com

46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90

Donald's evolutionary scale

with some additions

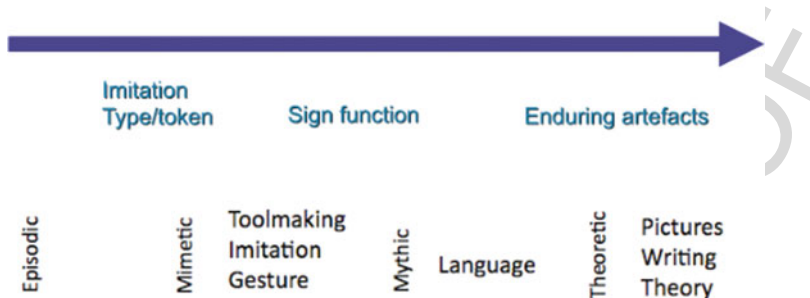


Fig. 5.1 Donald's model of evolution related to some further discontinuities: type/token, the sign, system character, and organism- independent artifacts

of expression and content, is required, but simply the conformity of tokens to a perceived or remembered type, but in other cases, exemplified by other instances of imitation, and by miming and other gestures, the sign function would seem an absolute prerequisite. If early mimesis may give rise to the organization of tokens into types, the sign would seem to emerge at the later mimetic stage.

Only the second transition brings about language (which, Donald muses, may at first have been gestural) with its *semantic* memory, that is, a repertory of units which may be combined. This kind of memory permits the creation of narratives, that is, mythologies, and thus a completely new way of representing reality. Although Donald is not very clear about it, his description of semantic memory could be taken to imply the presence of system character, that is, an organization in which signs mutually define each other. It is quite conceivable for language (but perhaps in an earlier gestural form) to be the first extant sign system.

Interestingly, Donald does not think development stops there, even though there are no further biological differences between human beings and other animals to take account of (however, the third transition obviously would not have been possible without the attainment of the three earlier stages). What Donald calls *theoretical* culture supposes the existence of external memory, that is, devices permitting the conservation and communication of knowledge independently of human beings. The first apparition of theoretical culture coincides with the invention of drawing. For the first time, knowledge may be stored externally to the organism. The bias having been shifted to visual perception, language is next transferred to writing. It is this possibility of conserving information externally to the organism that later gives rise to science. This, again, would seem to be a breaking point on the way to human beings: the possibility of memory as an external record, which perdures independently of the human organism.

Elsewhere, I have used Donald's conception of evolution, as rendered in the model above (Fig. 5.1), to discuss the curious fact that iconicity (and indexicality) are present already at the second stage, as mimetic gesture, but then makes an

5 Semiosis Beyond Signs. On Two or Three Missing Links on the Way...

renewed appearance at the fourth stage, in the shape of pictures (Sonesson, 2006, 2007a, in press). I have also discussed, within the same framework, the final “missing link” in the progression from animal to man, the emergence of organism-independent artefacts (Sonesson, 2007a, 2007b, 2010a, 2010b, in press). In the following, however, I will be concerned with two other, (nearly) missing links, the (principle of) relevance and the sign, as well as the act of imitation bridging them.

5.1 A Sign Concept for Integral Semiotics

The most serious problem of semiotics is that both the Saussurean and the Peircean brands of received semiotic theory do not explain *what* a sign is; they simply take it for granted. It is not enough to say there are signifiers and signifieds, or representamen, object, and interpretants, without specifying the requirement for something to fall under one of these categories. A useful concept of *sign* designates a kind of meaning, but it does not cover all meanings. Perception is clearly meaningful to animals and infants alike, but it seems reasonable to suppose that the capacity for *sign use* is a much more exclusive property. Conceptualizing the capacity of sign use in this way may help us to distinguish stages in evolution and development, notably the relationship between imitation and sign.

We will say that the sign is a meaning which is made up of two parts, traditionally known as *expression* and *content*. That the sign consists of two parts implies that the parts are separated. In Piaget’s (1945, 1967, 1970) terms, they are “differentiated from the point of view of the subject”. This it not to say that the differentiation is “subjective”, in the ordinary language sense – in most cases, the differentiation is part of what is learnt by the child growing into his particular culture. However, what is differentiated within the sign may or may not consist of several objects in the “objective” common sense world (where “objective” is that which is taken for granted in the dealings of ordinary life). Contrary to what Piaget suggests, we will therefore conclude that a thing which is immediately continuous to another or which is a part of another in the common sense world may very well be differentiated within the sign (cf. Sonesson, 1989, 1992b, 2010b, in press). We can imagine the same child that in Piaget’s example uses a pebble to stand for a piece of candy having recourse instead to a feather in order to represent a bird, or employ a pebble to stand for a rock, without therefore confusing the part and the whole: then the child would be employing a feature, which is *objectively* a part of the bird, or the rock, while differentiating the former from the latter *from his point of view*. Only then would he be using a true sign. In terms of socially better-established signs, a similar example would be the bull’s head used to indicate, above a market stand, that beef is sold there. Although in France, for example, cast heads of bulls or horses are employed outside the relevant shops, it is still possible to find real heads used in traditional markets in some countries. In a parallel fashion, things that are similar to each other can be differentiated within the sign. Thus, there can be indexical (contiguity-based) and iconic (similarity-based), as well as symbolic (rule-based) signs. If I see a branch sticking up over the house and conclude that

136 there is a tree behind the house, this is a mere indexicality; but the marks on the
 137 ground left by the animal are indexical signs, clearly separated from the (part of)
 138 the animals having produced them. And the photographic print of a person I know
 139 is clearly differentiated from the person seen in the picture.

140 Indeed, a further differentiation may have to be made for certain purposes. The
 141 marks on the ground tell me “an elk was here before”, and this is something distinct
 142 from the marks, as well from the elk, which is now somewhere else. Similarly, the
 143 colour configuration on the photograph is distinct from the perceptual impression of
 144 my wife, and the photograph is here with me now, while my wife is at her working-
 145 place. This is why we really have to separate three parts of the sign, *expression*,
 146 *content*, and *referent*, where content is the standpoint taken on the referent by the
 147 sign user, as codified in some semiotic resource.¹ To the hunter, it is important to
 148 identify the marks on the ground (expression) as being those of an elk (indexical
 149 content), but, being a hunter, he cannot be satisfied with this; he will follow the traces
 150 left by the animal until he finds the real elk (referent). Looking at the photography,
 151 I have no trouble (unlike small children and animals) to distinguish the colour spots
 152 on the paper (the expression) from the vicarious perception it suggests, e.g. of my
 153 wife fifteen years ago dancing Jalisco in a ample, pink skirt (content), nor from
 154 the real person I have known for twenty-six years and with whom I share so many
 155 memories (the referent, the real, continuous person in my personal Lifeworld).

156 But differentiation is not a sufficient criterion. Each time we actively and consci-
 157 ously put together a set of items that we have perceived, we must first differentiate
 158 the items to be joined – as opposed to the obliteration of their difference in categor-
 159 ical perception. But categorization is not as such a kind of sign use. Contiguity and
 160 factoriality are present everywhere in the perceptual world without as yet forming
 161 signs: we will say, in that case, that they are mere *indexicalities*. An index, then,
 162 must be understood as indexicality (an indexical relation or ground) plus the sign
 163 function. Analogously, the perception of similarities (which is an iconic ground)
 164 will give rise to an icon only when it is combined with the sign function. As always,
 165 there are passages in Peirce’s work, which may be taken in different ways, but it
 166 makes more systematic and evolutionary sense to look upon iconicity and indexi-
 167 cality as being only potentials for something being a sign.² Iconicity, indexicality,
 168 and symbolicity only describe *that which connects two objects*; they do not tell
 169 us whether the result is a sign or not (Fig. 5.2). These considerations allow us
 170 to separate the study of the phylogenetic and ontogenetic emergence of iconicity,
 171 indexicality and symbolicity from that of the corresponding signs (cf. Sonesson,
 172 1998, 2001, in press).

AQ2

173

174

175 ¹ This is of course not the Peircean triad, but rather corresponds to the representamen, and to the
 176 immediate and dynamical objects, respectively (as well as to the corresponding interpretants).

177 ² In relation to the standpoint of many other semioticians, I have to spell out here (as in many of
 178 my earlier publications, but perhaps most explicitly in Sonesson, 2009), that I am not interested in
 179 finding out what Peirce “really said”. To give an all to simple expression to a complicated issue, I
 180 will just say that I use Peirce as a source of inspiration, just as I do with many other writers on the
 theme.

5 Semiosis Beyond Signs. On Two or Three Missing Links on the Way...

	Firstness	Secondness	Thirdness
Principle (Firstness)	Iconicity	—	—
Ground (Secondness)	Iconic ground	Indexicality = indexical ground	—
Sign (Thirdness)	Iconic sign (icon)	Indexical sign (index)	Symbolicity = symbolic ground = symbolic sign (symbol)

Fig. 5.2 The relationship between principles, grounds, and signs, from a point of view inspired by Peirce as spelled-out in Sonesson (1996, 2007a, 2007b)

The sign as such is thus a whole made up of two parts, expression and content, and there is a *double asymmetric relationship* between them. First, from the point of view of immediacy, expression is more accessible to consciousness than content. In the second place, content is more in focus (more prominent, more important) than expression. When I look at the photograph, I am normally interested in the person depicted (my wife, either at the exact moment she was dancing Jalisco, or as an enduring person of my personal Lifeworld). My wife does not represent the photograph.³ The phenomenologist Edmund Husserl (1939) formulated the definition of the sign (more precisely, “appresentation”) more or less in these terms, but a similar view is implicit already in Augustine’s conception of the sign (in our terms, the expression) as something which, by becoming conscious, makes us aware of something else (the content; cf. Deely, 2001).⁴

However, Bates (1979, p. 43) has hinted at the idea that the sign (our expression) and its referent (which would seem to correspond to both what I have called content and referent) must be conceived as being both similar and separate for a sign relationship to obtain. Bates’ somewhat convoluted definition is later unpacked by Daddesio (1995, p. 117):

Given a physical mark (sound, movement, shape, etc.), *a*, and a particular class of things, *b*, that *a* is thought to stand for, let us consider three possible ways which an organism can relate *a* and *b*. In the first instance, the organism fails to grasp any relation whatsoever between the two. /---/ In the first case, semiosis is thus absent. In the second case, the organism would be capable of relating the two, but instead of apprehending a relation between two distinct entities, it would simply react in the same fashion if presented *a* and if presented *b*. /---/ In the third case, the organism would recognize *a* and *b* as distinct but related.

³ Seeing her now, I may of course be reminded of when I took that photograph, or when she made that dance, but this does not change the asymmetric structure of the sign, only my mental use of it.

⁴ This does not preclude other relations between expression and content being symmetric. It is common to suppose a substitutive relationship, which is a symmetric relation, between expression and content, but this may be misleading, since expressions are rarely used for the same purpose and in the same context as their contents.

226 Nevertheless, it is in fact impossible to conclude from an individual treating a and b
227 as being distinct, that the particular relationship between a and b is necessarily one
228 of appresentation (sign function). Daddesio's second case is that of categorization,
229 which is important to perception. Given a prototype conception of categories, a and
230 b may be treated as different just because they are differently central to the category
231 of which they are perceived to be a part. Or they may be attended to differently,
232 merely because one contains more, and more interesting, perceptual properties than
233 the other (and, indeed, sign vehicles would tend to be "degraded stimuli", when
234 compared to what they are signs of). The problem of separating the expression and
235 the content of a sign becomes particularly acute in the case of an iconical sign, in
236 which, by definition, expression and content must share at least some properties (Cf.
237 Sonesson & Zlatev, forthcoming).

238 The sign, then, consists of two intrinsic parts, expression and content, which
239 are related to a third, the referent. The relation between these parts may be iconic,
240 indexical, or symbolic, but it always supposes a differentiation of the parts, from the
241 point of view of the sign user. The sign relation is asymmetric in a double sense:
242 what we call expression is always more directly perceived than the content, and the
243 content is more accessible than the referent. On the other hand, it is the referent
244 and/or the content that is in focus, at least more so than the expression.

245

246

247 5.2 Imitation as Token and as Sign

248

249 The characterization of the sign above is partly inspired in Piaget's notion of the
250 "symbolic" (later the "semiotic") function, which is a capacity acquired by the child
251 at an age of around eighteen to twenty-four months, which enables him or her to
252 imitate something or somebody outside the direct presence of the model, to use
253 language, make drawings, play "symbolically", and have access to mental imagery
254 and memory. The common factor underlying all these phenomena, according to
255 Piaget, is the ability to represent reality by means of a signifier, which is distinct
256 from the signified. The sign function thus characterizes a stage of child development,
257 though Piaget himself chooses to describe this stage only negatively, that is, a being
258 pre-operational. Imitation, or, more exactly, "representative imitation", is claimed
259 by Piaget (1945) to be instances of the origin of the semiotic function. When more closely
260 scrutinized, some instances of imitation actually turn out to be signs already, while
261 others clearly are not.

262 Donald places imitation within the second stage of human development, mime-
263 sis. In his view, mimetic culture starts out with the emergence of "conscious,
264 self-initiated, representational acts, which are intentional [i.e. voluntary] but not
265 linguistic" (1991, p. 168). The examples given by Donald are such things as ges-
266 ture, dance, ritual, mime, play-acting, and (precise) imitation, but also tool use (or
267 perhaps rather the social generalization of tool use) and skill. Somewhere in between
268 mimesis and language the semiotic function arises, though Donald addresses this
269 only obliquely, mentioning the use of intentional systems of communication and the
270 distinction of the referent. In fact, this certainly happens between animal camouflage

5 Semiosis Beyond Signs. On Two or Three Missing Links on the Way...

271 and pictures. According to Deacon (1997, pp. 74ff), however, iconicity as found in
 272 “a portrait” is “not basically different” from the fact of there being no distinction
 273 at all, that is, it would seem, from mere identity. On the following pages, Deacon
 274 then goes on to maintain that a number of phenomena which could otherwise appear
 275 to be completely different are in fact equivalent: the perception of the same “stuff”
 276 over and over again (seeing something that does not change into something else),
 277 camouflage as exemplified by the case of the moth’s wings being seen by the bird as
 278 “just more tree”, “stimulus generalisation”, and even recognition, that is, the iden-
 279 tification of something as pertaining to the same category. Although all or most
 280 abilities subsumed under the mimetic stage depend on iconic relations, only some
 281 of them are signs, because they do not all involve some asymmetric relation between
 282 an expression and the content for which it stands.

283 In fact, in his early book, Donald (1991, pp. 168f) opposes mimesis to mimicry
 284 and imitation, both of which are said to be quite common in animals but lacking “a
 285 representational dimension”. Though the import of this claim is not clear, it could
 286 be taken to mean that mimicry and imitation, in this sense, lack differentiation. In
 287 Donald’s (2001, pp. 260f) later book, however, “(precise) imitation” is an instance of
 288 mimesis. This would no doubt exclude the kind of automatic imitation in the infant
 289 (“neonatal mirroring”), discovered by Meltzoff, such as sticking out the tongue to
 290 one who does just that (Cf. Gallagher, 2005; also see Donald, 2001, pp. 264ff). It is
 291 less clear whether Donald would follow Tomasello (1999) in making a distinction
 292 between the imitation of goals (called “emulation”), of which he believes apes to
 293 be capable, and the imitation of means, which is a capacity Tomasello would like
 294 to restrict to human beings, although he later on (in Tomasello, 2008) recognizes its
 295 presence in at least some apes.⁵ At first it may seem strange that imitating the goal
 296 is presented as being easier than imitating the means by which the goal is achieved.
 297 But no doubt it is less demanding to recognize the interest of the aim (getting the
 298 banana) than the interest of the requisite steps for realising the goal. At another
 299 level, it is like attending to the content, not the expression, of a sign. Indeed, it is an
 300 instance of quite ordinary Lifeworld behaviour.

301 One may wonder why tool use and skill are thought to be part of mimetic culture
 302 and not just “routine locomotor acts” or “procedural memory” which Donald
 303 (1991, p. 168) elsewhere takes pains to separate from mimesis. No doubt Donald
 304 (1991, pp. 171ff) would answer that they are different because they comply with
 305 his criteria for mimetic acts: they are “intentional” (that is, voluntary), “generative”
 306 (that is, analysable into components which may be recombined into new wholes),
 307 and “communicative” (or at least, as we shall see “public”). Moreover, they have
 308 reference (“in mimesis the referential act must be distinguished from its referent”,
 309 that is, in our terms, there must be differentiation), stand for an unlimited number
 310 of objects, and are auto-cued (produced without an external stimulus). Generativity
 311

312 ⁵ A study of imitation of actions from static pictures, reported in Call, Hrabar, and Sonesson (forth-
 313 coming) would certainly seem to suggest that apes may be capable of imitating means as well as
 314 goals, at least in one sense of these terms. In his most recent book, however, Tomasello (2008)
 315 seems to downplay even more the capacity for imitation in apes.

316 is a property of many kinds of meaning, which are not signs. However, it is not
 317 clear in what sense tool use and many other kinds of skill are “communicative”, and
 318 therefore, in which way they have reference and stand for an unlimited number of
 319 objects.

320 After introducing “communicativity” as a criterion of mimesis, Donald (1991,
 321 p. 172) goes on to say that “although mimesis may not have originated as a means
 322 of communication, and might have originated in a different means of reproductive
 323 memory, such as tool-making, mimetic acts are, by their nature, usually public and
 324 inherently possess the potential to communicate.” This, though, is very different
 325 from imitation as a sign, which is what is realised by the actor, who presents his acts
 326 to a specific public; it is even different from the child’s symbolic play, which must be
 327 available to and shared with other children. What we have here is, first, the extraction
 328 of a token from a type, which supposes treating the other as a spectacle; and second,
 329 the realisation of the tool act, which is not public-directed, but can be made available
 330 to the public (Fig. 5.3). The use of the tool does require the separation of the typical
 331 properties from the single act occurring in the here and now, i.e. relevance. In order
 332 to learn the use of a tool, you must at least be able to isolate the properties that
 333 should be imitated from those which are of no avail. However, even though this act
 334 of imitation may be observed, it is not part of its purpose to be observed. When the
 335 actor who has the part of Hamlet lifts up the skull of “Poor Yorick”, then his act
 336 does not only consist in imitating what a man having that name supposedly did in
 337 Renaissance Denmark, but also in presenting this act as something to be seen, as a
 338 spectacular act (cf. Sonesson, 2000a). The symbolic play of children may perhaps be
 339 considered to be some kind of intermediary case, because its spectacular character
 340 is not its ultimate goal, but is only instrumental in making the play function as play;
 341 indeed, it is not intentionally offered as a spectacle for individuals not participating
 342 in the play.

	Imitation (Token/Type)	Imitation as Learning (Extracting Type from Token)	Symbolic play (Expression/ Content)	Play-acting (Expression/ Content)
	<i>Instantiates a type of act</i>	<i>Extracts a type from one or several (novel) token acts</i>	<i>Represents a type of (habitual) act - or perhaps token outside of time and space</i>	<i>Represents an individual act in time and space</i>
vehicle	Using the typical means for realising the type hammering the nail	Observing the hammering (first token) extracting the type for doing hammering (second token)	Realising the typical acts of the mother part	Creating the appearance here and now of being Hamlet doing Hamlet things
tenor	Doing the type of act having as goal to hammer a nail	Extracting the type of hammering a nail	Doing what mothers usually do to their babies	Doing as Hamlet did in Helsinki during the Renaissance

359
 360 **Fig. 5.3** From imitation as token for a type to imitation a sign

5 Semiosis Beyond Signs. On Two or Three Missing Links on the Way...

361 Thus, tool use and other kinds of skill as such are not mimesis, because they
 362 are not communicative, but they are “public”, and they lend themselves to imita-
 363 tion – which leads to generalization of tool use and skill in society. This is where
 364 they become different from routine acts and procedural memory. They are socially
 365 shared. But this is only possible if the act can be separated from the unique tool user
 366 and transferred to another user. That is, the act as token must be abstracted to a type
 367 in order to be realised in another token. What is shared is the type, in other words
 368 the scheme of interpretation, which defines the principle of relevance (in the sense
 369 of a rule that picks out the properties of one object being mapped onto another). In
 370 this sense (not in the sense of reference), a single mimetic act may correspond to
 371 various events.

372 It is therefore by means of imitation that the “extension of conscious control
 373 into the domain of action” (Donald, 2001, p. 261) may be obtained. But the act of
 374 imitation, in this instance, is in no way a sign. If I see somebody use a stone as a tool
 375 to crack open the shell of a nut, I may do the same thing, not to bring into mind the
 376 act of the other person I have observed, but to obtain the same effect. I attempt to
 377 realise the same act as he did, that is, to open the shell up, so that I can take out the
 378 nut and eat it. Instead of producing an expression that is non-thematic but directly
 379 given which refers to a content that is thematic but indirectly given, I am realising
 380 a new instance of the category of acts consisting in cracking open a nutshell. Like
 381 Tomasello’s apes, I may of course try to obtain the same effect without attending
 382 to the adequate means, which would produce a failed act of imitation. Or, I may
 383 merely simulate the outer actions of cracking the shell open, without letting them
 384 have a sufficient impact on the physical environment, in which case I may either be
 385 engaged in symbolic play, play-acting, or simply practicing the movements.

386 Imitation, in this sense, may thus be said to be differentiated, in the sense of
 387 separating the mediator and that which is mediated, but it is not asymmetric, neither
 388 in the sense of focus, nor in that of directness. Indeed, it is really the type that is
 389 mediated by the token. This also means that the purpose of the act of imitation is
 390 not to present the original act to another subject (or even to oneself). Bentele (1984)
 391 in fact argued against Piaget that imitation does not manifest the semiotic function,
 392 but is a prerequisite for it: indeed, it will function as a sign only to the extent that
 393 it is taken to refer back to the imitated act, instead of just being another instance of
 394 the same kind.

395 Acts of imitation in this sense have two interesting properties: they are “public”,
 396 in the very broad sense characterized by Donald, i.e. they may be perceptually, often
 397 visually, inspected; and they can be copied by means of the observer’s own body,
 398 with or without some additional implement such as a stone. In both these ways,
 399 imitation is different from episodic memory; and it is different from procedural
 400 memory in being a public record. Like in procedural memory, the record is located in
 401 one’s own body, but it can only function as memory to the extent that it is somehow
 402 separable from the body as such. In fact, this can only be so, to the extent that
 403 memory traces are instantiated in other bodies as well as in one’s own body. This
 404 supposes a distinction between token and type (that is, relevance) preceding that of
 405 the semiotic function.

5.3 The Peircean Sign or the Observer Observed

The Peircean sign is a sign only in a very Pickwickian sense of the term. It is one of three specifications of Firstness, Secondness, and Thirdness. It might be said to be concerned with interpretation in a more generic sense than the sign: “semiosis”. Perhaps this is what Peirce was thinking about when, at a later stage, he complained that his notions were too narrow, and that, instead of referring to signs, he should be talking about mediation or “branching” (CP 4.3. and MS 339 quoted in Mertz & Parmentier, 1985).

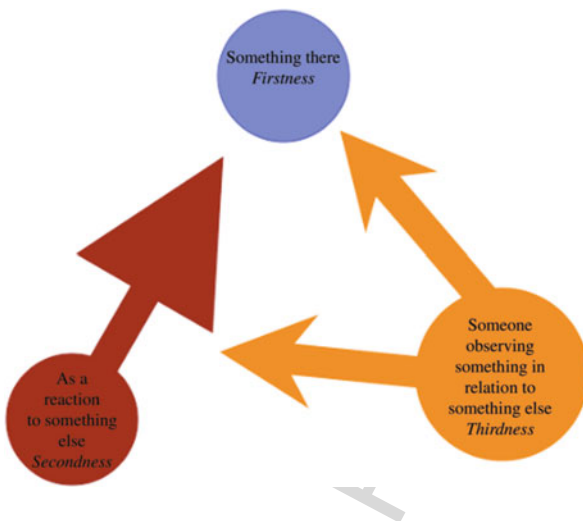
Conceived in this way, Peirce’s theory appears to be about the situation of communication, but much closer to what we now would describe as a hermeneutical model than to the model known from the theory of information. In this sense, “a sign [or rather semiosis] is whatever there may be whose intent is to mediate between an utterer of it and interpreter of it, both being repositories of thought, or quasi-minds, by conveying a meaning from the former to the latter” (MS 318, quoted by Jappy, 2000). In many passages, the object is not described as that which the sign is about, that is, to which it refers, in the sense in which this term is used in linguistic philosophy: instead, it is that which incites somebody to produce a sign (which may or may not coincide with the referent). It is in this sense that the object is Secondness: it concerns the relation between the reality perceived and the expression produced. Similarly, the interpretant must be seen as the result of the receiver taking in the whole event of the utterer creating an expression starting out from some feature of his experience. Because it refers to the relation between the utterer and that which he reacts to, it is not only an elementary relation, it is Thirdness. Indeed, this idea is very well illustrated by the notion of “branching”, which Peirce used to characterise his later concept of mediation.

Even describing that which Peirce is concerned about as an act of communication may amount to being too specific. Instead, it could be characterized as an observation being observed. Summarizing all of Peirce’s different attempts at pinning down the nature of Firstness, we could probably say that it is something that appears or may appear (without connection to anything else). It is thus prior to all relationship. Secondness is not only the second term that comes into play, but also it is made up of two parts, one of which is a property, and the other a relation. It is something the function of which it is to hook up with something already given as a possibility. In this sense, it is a reaction, in the most general sense, to Firstness, where the first part is the connection to the property independently appearing and the second part describes the nature of this relationship. Thirdness is not only the third term which is ushered in, but it consists of three parts, two of which are relational: one which is hooked up to the term of Firstness and another which is connected to the relation of Secondness, together with which we find a third term describing the relationship between these two terms. It is thus an observation of the reaction. Appearance is monadic, reaction is dyadic, and observation is triadic (Cf. Fig. 5.4).

In social psychology, in particular developmental psychology, there is also much talk about dyads and triads, and about some things being dyadic and other triadic (cf. Tomasello, 1999). Thus, interactions, engagements, eye gaze, and so on, are said

5 Semiosis Beyond Signs. On Two or Three Missing Links on the Way...

451 **Fig. 5.4** The basic meaning
452 of the Peircean triad



468 to by either dyadic or triadic. This terminology would seem to have originated in
469 the sociology of Georg Simmel (Cf. Simmel, 1971). Dyads and triads are to Simmel
470 groups of two or three individuals, respectively. Units, not relationships are counted.
471 Between two individuals there may be any number of relationships, just as there may
472 be between three individuals. When, in contemporary articles, ~~when~~ we read about
473 a “mother-child dyad”, etc., this is clearly what is meant. In general, translated into
474 the terminology of Sonesson (2000b), a dyadic situation seems to be taken to consist
475 of Ego and Alter (another person) or Ego and Alius (a thing or a person treated as
476 a thing), whereas a triad includes all three types. Even more specifically, the triad
477 tends to involve child, caretaker and a referent.

478 Other uses are more explicitly relational: dyadic is opposed to triadic as the relation
479 of a subject to an object, or another subject is opposed to the relation of a subject
480 both to another subject and another object. Thus, on one hand, there is “dyadic eye
481 gaze: looking at object or person”, and on the other hand there is “triadic eye gaze:
482 looking back and forth between object and person” (Cf. Bates, 1979). A more complex
483 interpretation would suppose that a dyadic relation is a relation between two
484 individuals, while a triadic relation is a relation to the relation between two individ-
485 uals. This is similar to what Peirce seems to mean, according to the interpretation
486 given above. It should be noted that such a relation to the relation between Alter and
487 Alius is not the same thing as two relations, to Alter on the one hand, and to Alius on
488 the other. However, in practice, the only way to know that somebody is attending to
489 the relationship between two individuals may be to observe him or her looking first
490 at one individual and then at the other. Perhaps we would even need to go further,
491 introducing relations between relations as well as relation between such relations.

492 Clearly social psychology, in spite (or because) of being a much more practi-
493 cal concern than Peircean philosophy, is as unclear about what is dyadic and triadic
494 as Peirce. Basically, however, it seems that what is involved in dyadic relations, in
495 both cases, is a subject taking cognizance of the world, and in the triadic relations,

somebody being aware of what the first subject is doing.⁶ Typically, in social psychology, this is the caretaker observing the child's perceptual interchange with the world. In other words, it involves Ego and Alter interacting with reference to Alius.

Understood in this way, Peircean semiosis (which we should no longer restrict to being a sign) is not properly speaking "communicative", in Donald's sense, but certainly "public" or, perhaps better "spectacular". It is available to others. Yet, for it to be available, it is not enough for it to be present, but it must be accessible to attention. What is needed is a community (not only a single caretaker) for which this information is available – and the capacity for attending, without which the information is lost, as it is on so many other animals than man, as soon as it goes beyond the properties defined by its ecological niche (Cf. Gurwitsch, 1957; Sonesson, 1989, 1996, 2007a, 2007b; Arvidson, 2006). Thus the capacity for attending freely to the outside world – going beyond the Umwelt to the Lebenswelt –, may well be the first missing link on the way from animals to human beings.

References

- Arvidson, S. (2006). *The sphere of attention: Context and margin*. London: Kluwer.
- Bates, E. (1979). *The emergence of symbols*. New York: Academic.
- Bentele, G. (1984). *Zeichen und Entwicklung. Vorüberlegungen zu einer genetischen Semiotik*. Tübingen: Narr.
- AQ3** Call, J., Hřibar A., & Sonesson, G. (forthcoming). *Apes' imitation of complete and non-complete action sequences from reality and pictures*.
- Daddesio, T. C. (1995). *Of minds and symbols*. Berlin and New York: Mouton de Gruyter.
- Deacon, T. (1997). *The symbolic species*. New York: Norton.
- Deely, J. (2001). *Four ages of understanding*. Toronto: University of Toronto Press.
- Donald, M. (1991). *Origins of the modern mind*. Cambridge, MA: Harvard University Press.
- Donald, M. (2001). *A mind so rare*. New York: Norton.
- Gallagher, S. (2005). *How the body shapes the mind*. Oxford: Clarendon Press.
- Gurwitsch, A. (1957). *Théorie du champ de la conscience*. Bruges: Desclée de Brouwer.
- Husserl, E. (1939). *Erfahrung und Urteil*. Prag: Academia Verlagbuchhandlung.
- AQ4** Jappy, T. (2000). Iconicity, hypoiconicity. In J. Quiroz & R. Gudwin (Eds.), *The digital encyclopaedia of Charles S. Peirce*. <http://www.digitalpeirce.fee.unicamp.br/jappy/hypjap.htm>
- Mertz, E., & Parmentier, R. J. (Eds.). (1985). *Semiotic mediation: Sociocultural and psychological perspectives*. Orlando, FL: Academic.
- Piaget, J. (1945). *La formation du symbole chez l'enfant*. Neuchatel: Delachaux & Niestlé.
- Piaget, J. (1967). *La psychologie de l'intelligence*. Paris: Armand Colin.
- Piaget, J. (1970). *Epistémologie des sciences de l'homme*. Paris: Gallimard.
- AQ5** Peirce, C. (1931–58). *Collected papers I–VIII*. In C. Hartshorn, P. Weiss, & A. Burks (Eds.). Cambridge, MA: Harvard University Press (=CP).
- AQ6** Peirce, C. (1998). *The essential peirce, volume I–II*. Bloomington, IN and Indianapolis, IN: Indiana University Press.
- AQ7** Simmel, G. (1971). In D. Levine (Ed.), *On individuality and social forms: Selected writings*. Chicago: University of Chicago Press.
- Sonesson, G. (1989). *Pictorial concepts*. Lund: Aris/Lund University Press.

⁶ Or something: The mind is not necessarily a subject to Peirce, but he does admit that there is no way of explaining it, at least at present, than by reference to a subject.

5 Semiosis Beyond Signs. On Two or Three Missing Links on the Way...

AQ8

- 541 Sonesson, G. (1992a). *Bildbetydelser*. Lund: Studentlitteratur.
- 542 Sonesson, G. (1992b). The semiotic function and the genesis of pictorial meaning. In E. Tarasti
543 (Ed.), *Center/periphery in representations and institutions. Imatra, Finland* (July 16–21, 1990,
544 pp. 211–156). Imatra: Acta Semiotica Fennica.
- 545 Sonesson, G. (1996). An essay concerning images. From rhetoric to semiotics by way of ecological
546 physics. *Semiotica*, 109(1/2), 41–140.
- 547 Sonesson, G. (2000a). Action becomes Art. “Performance” in the Context of Theatre, Play, Ritual –
548 and life. *VISIO*, 5(2), 105–122.
- 549 Sonesson, G. (2000b). Ego meets Alter: The meaning of otherness in cultural semiotics. *Semiotica*,
550 128–3/4, 537–559.
- 551 Sonesson, G. (2001). From semiosis to ecology. *VISIO*, 6(2–3), 85–110.
- 552 Sonesson, G. (2006). The meaning of meaning in biology and cognitive science. A semiotic
553 reconstruction. *Semiotiké. Trudy po znakovym sistemam/Sign system studies*, 34, 135–213.
- 554 Sonesson, G. (2007a). From the meaning of embodiment to the embodiment of meaning. In
555 T. Ziemke, J. Zlatev, & R. Frank (Eds.), *Body, language, and mind* (pp. 85–28). Berlin and
556 New York: Mouton de Gruyter.
- 557 Sonesson, G. (2007b). The extensions of man revisited. From primary to tertiary embodiment. In
558 J. Krois, M. Rosengren, A. Steidle & D. Westerkamp (Eds.), *Embodiment in cognition and
559 culture* (pp. 27–56). Amsterdam and Philadelphia, PA: Benjamins.
- 560 Sonesson, G. (2009). The view from Husserl’s Lectern: Considerations on the role of phenomenol-
561 ogy in cognitive semiotics. *Cybernetics and Human Knowing*, 16(3–4), 107–148.
- 562 Sonesson, G. (2010a). Here comes the semiotic species: Reflections on the semiotic turn in
563 the cognitive sciences. In B. Wagoner (Ed.), *Symbolic transformations* (pp. 38–58). London:
564 Routledge.
- 565 Sonesson, G. (2010b). Semiosis and the elusive final interpretant of understanding. *Semiotica*,
566 178–1/2, 511–624.
- 567 Sonesson, G. (in press). From iconicity to pictoriality. *VISIO*.
- 568 Sonesson, G., & Zlatev, J. (forthcoming). ~~Theoretical conclusions of the project “Stages in the
569 evolution and development of sign use”~~.
- 570 Tomasello, M. (1999). *The cultural origins of human cognition*. Cambridge, MA: Harvard
571 University Press.
- 572 Tomasello, M. (2008). *Origins of human communication*. Cambridge, MA: MIT Press.
- 573
- 574
- 575
- 576
- 577
- 578
- 579
- 580
- 581
- 582
- 583
- 584
- 585

AQ9

AQ10

Chapter 5

Q. No.	Query
AQ1	Please check the edited contributor affiliation.
AQ2	The reference "Sonesson 1998" is not provided in reference list. Kindly check.
AQ3	Kindly update the year and publisher details for ref. "Call et al. (forthcoming)."
AQ4	Kindly provide retrieved date for reference "Jappy (2000)".
AQ5	The reference "Peirce (1931-58)" is not cited in text. Kindly check. And also provide book title and page range.
AQ6	The reference "Peirce (1998)" is not cited in text. Kindly check.
AQ7	Kindly provide chapter title and page range for reference "Simmel (1971)."
AQ8	The reference "Sonesson (1992a)" is not cited in text. Kindly check.
AQ9	Kindly update the year, volume, and page range for reference "Sonesson (in press)."
AQ10	Kindly update the year and publisher details for reference "Sonesson & Zlatev (forthcoming)"

UNCORRECTED PROOF