

1
2
3
4
5 1 *Abstract*
6

7 The increasing body of research into human and non-human primates' gestural
8 communication reflects the interest in a comparative approach to human communication,
9 particularly possible scenarios of language evolution. One of the central challenges of this
10 field of research is to identify appropriate criteria to differentiate a gesture from other non-
11 communicative actions. After an introduction to the criteria currently used to define non-
12 human primates' gestures and an overview of ongoing research, we discuss different
13 pathways of how manual actions are transformed into manual gestures in both phylogeny and
14 ontogeny. Currently, the relationship between actions and gestures is not only investigated on
15 a behavioural, but also on a neural level. Here we focus on recent evidence concerning the
16 differential laterality of manual actions and gestures in apes in the framework of a functional
17 asymmetry of the brain for both hand use and language.
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

14 Keywords: gesture, manual, ontogenetic ritualization, phylogenetic ritualization, laterality,
15 great apes
16
17