

# Table of Contents

I.	Introduction.....	11
I.1	The role of proprioception in position sense .....	11
I.2	A body representation underlying position sense .....	11
I.3	Measuring the body model.....	12
I.4	The relation between the body model and somatosensory distortions .....	12
I.5	Dissociation between body image and body model.....	13
I.6	Thesis Overview: Aim and Structure of the Thesis .....	14
I.6.1	Comparing hand and object distortions .....	14
I.6.2	Comparing implicit vs. explicit judgments of an item shape index .....	15
I.7	Chapter organization.....	16
I.7.1	Chapter 1: Objects exhibit body model like shape distortions .....	16
I.7.2	Chapter 2: The role of visual similarity and memory in body model distortions. 18	
I.7.3	Chapter 3: Conceptual biases explain distortion differences between hand and object in localization tasks .....	20
II.	General discussion .....	21
II.1	What drives hand and object distortions in localization tasks? .....	25
II.1.1	Somatosensory distortions .....	25
II.1.2	General mechanisms in hand distortions.....	26
II.1.3	Same distortions, different causes.....	27
II.2	A multimodal version of the body model mediating position sense .....	31
II.3	How many body representations do we need?.....	32
III.	Conclusion.....	33
III.1	Supplementary material .....	34
IV.	Declaration of the contribution of the candidate.....	35
V.	Chapter 1: Objects exhibit body model like shape distortions .....	36
VI.	Chapter 2: The role of visual similarity and memory in body model distortions ...	53
VII.	Chapter 3: Conceptual biases explain distortion differences between hand and objects in localization tasks .....	77
VIII.	Bibliography.....	93