

1. Record Nr.	UNINA9910137003403321
Autore	Spranger Michael
Titolo	The evolution of grounded spatial language // Michael Spranger
Pubbl/distr/stampa	Berlin, Germany : , : Language Science Press, , [2016] ©2016
ISBN	3-944675-46-0 3-946234-15-1
Descrizione fisica	1 online resource (x, 267 pages) : illustrations (some colour)
Collana	Open Access e-Books Knowledge Unlatched Computational models of language evolution ; ; 5
Disciplina	402.85
Soggetti	Computational linguistics Language acquisition Semantics Spatial language
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references (pages [251]-262) and index.
Nota di contenuto	1. Introduction -- 2. Grounded spatial language games -- 3. Embodied cognitive semantics with IRL -- 4. Construction grammar with FCG -- 5. German locative phrases - an introduction -- 6. Spatial semantics -- 7. Syntactic processing -- 8. Semantic processing -- 9. A whole systems approach to processing -- 10. Evolution of basic spatial category systems -- 11. Evolution of spatial conceptualization strategies -- 12. Multi-word lexical systems for expressing landmarks -- 13. Function and evolution of locative spatial grammar -- 14. Conclusion and future work.
Sommario/riassunto	This book presents groundbreaking robotic experiments on how and why spatial language evolves. It provides detailed explanations of the origins of spatial conceptualization strategies, spatial categories, landmark systems and spatial grammar by tracing the interplay of environmental conditions, communicative and cognitive pressures. The experiments discussed in this book go far beyond previous approaches in grounded language evolution. For the first time, agents can evolve

not only particular lexical systems but also evolve complex conceptualization strategies underlying the emergence of category systems and compositional semantics. Moreover, many issues in cognitive science, ranging from perception and conceptualization to language processing, had to be dealt with to instantiate these experiments, so that this book contributes not only to the study of language evolution but to the investigation of the cognitive bases of spatial language as well.
