

Stephen M Kosslyn

List of Publications by Year in descending order

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163
papers

25,060
citations

10389

72
h-index

7950

149
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169
all docs

169
docs citations

169
times ranked

11677
citing authors

#	ARTICLE	IF	CITATIONS
1	Placebo-Induced Changes in fMRI in the Anticipation and Experience of Pain. <i>Science</i> , 2004, 303, 1162-1167.	12.6	1,731
2	Image And Brain. , 1994, , .		1,452
3	Neural foundations of imagery. <i>Nature Reviews Neuroscience</i> , 2001, 2, 635-642.	10.2	1,430
4	Seeing and imagining in the cerebral hemispheres: A computational approach.. <i>Psychological Review</i> , 1987, 94, 148-175.	3.8	916
5	Topographical representations of mental images in primary visual cortex. <i>Nature</i> , 1995, 378, 496-498.	27.8	798
6	Visual images preserve metric spatial information: Evidence from studies of image scanning.. <i>Journal of Experimental Psychology: Human Perception and Performance</i> , 1978, 4, 47-60.	0.9	674
7	Visual Mental Imagery Activates Topographically Organized Visual Cortex: PET Investigations. <i>Journal of Cognitive Neuroscience</i> , 1993, 5, 263-287.	2.3	642
8	Mental Imagery: Functional Mechanisms and Clinical Applications. <i>Trends in Cognitive Sciences</i> , 2015, 19, 590-602.	7.8	631
9	Brain areas underlying visual mental imagery and visual perception: an fMRI study. <i>Cognitive Brain Research</i> , 2004, 20, 226-241.	3.0	624
10	Motor processes in mental rotation. <i>Cognition</i> , 1998, 68, 77-94.	2.2	556
11	Mental rotation of objects versus hands: Neural mechanisms revealed by positron emission tomography. <i>Psychophysiology</i> , 1998, 35, 151-161.	2.4	543
12	Imagery, propositions, and the form of internal representations. <i>Cognitive Psychology</i> , 1977, 9, 52-76.	2.2	475
13	Pictures and names: Making the connection. <i>Cognitive Psychology</i> , 1984, 16, 243-275.	2.2	469
14	When is early visual cortex activated during visual mental imagery?. <i>Psychological Bulletin</i> , 2003, 129, 723-746.	6.1	429
15	Evidence for two types of spatial representations: Hemispheric specialization for categorical and coordinate relations.. <i>Journal of Experimental Psychology: Human Perception and Performance</i> , 1989, 15, 723-735.	0.9	412
16	The medium and the message in mental imagery: A theory.. <i>Psychological Review</i> , 1981, 88, 46-66.	3.8	390
17	Understanding charts and graphs. <i>Applied Cognitive Psychology</i> , 1989, 3, 185-225.	1.6	352
18	Visual Mental Imagery Induces Retinotopically Organized Activation of Early Visual Areas. <i>Cerebral Cortex</i> , 2005, 15, 1570-1583.	2.9	344

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19	Neural Systems Shared by Visual Imagery and Visual Perception: A Positron Emission Tomography Study. <i>NeuroImage</i> , 1997, 6, 320-334.	4.2	343
20	Imagining predictions: mental imagery as mental emulation. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2009, 364, 1273-1280.	4.0	320
21	On the demystification of mental imagery. <i>Behavioral and Brain Sciences</i> , 1979, 2, 535-548.	0.7	301
22	Components of high-level vision: A cognitive neuroscience analysis and accounts of neurological syndromes. <i>Cognition</i> , 1990, 34, 203-277.	2.2	294
23	Mental images and the Brain. <i>Cognitive Neuropsychology</i> , 2005, 22, 333-347.	1.1	286
24	Hypnotic Visual Illusion Alters Color Processing in the Brain. <i>American Journal of Psychiatry</i> , 2000, 157, 1279-1284.	7.2	281
25	Imagining rotation by endogenous versus exogenous forces: Distinct neural mechanisms. <i>NeuroReport</i> , 2001, 12, 2519-2525.	1.2	251
26	Why are "What" and "Where" Processed by Separate Cortical Visual Systems? A Computational Investigation. <i>Journal of Cognitive Neuroscience</i> , 1989, 1, 171-186.	2.3	247
27	Form-specific visual priming in the right cerebral hemisphere.. <i>Journal of Experimental Psychology: Learning Memory and Cognition</i> , 1992, 18, 492-508.	0.9	235
28	Identifying objects seen from different viewpoints A PET investigation. <i>Brain</i> , 1994, 117, 1055-1071.	7.6	232
29	A PET investigation of implicit and explicit sequence learning. <i>Human Brain Mapping</i> , 1995, 3, 271-286.	3.6	215
30	Intuitions and introspections about imagery: the role of imagery experience in shaping an investigator's theoretical views. <i>Applied Cognitive Psychology</i> , 2003, 17, 147-160.	1.6	213
31	Visual imagery and visual-spatial language: Enhanced imagery abilities in deaf and hearing ASL signers. <i>Cognition</i> , 1993, 46, 139-181.	2.2	206
32	Individual differences in mental imagery ability: A computational analysis. <i>Cognition</i> , 1984, 18, 195-243.	2.2	200
33	Categorical versus coordinate spatial relations: Computational analyses and computer simulations.. <i>Journal of Experimental Psychology: Human Perception and Performance</i> , 1992, 18, 562-577.	0.9	196
34	A Simulation of Visual Imagery*. <i>Cognitive Science</i> , 1977, 1, 265-295.	1.7	194
35	Altering expectancy dampens neural response to aversive taste in primary taste cortex. <i>Nature Neuroscience</i> , 2006, 9, 435-442.	14.8	182
36	Training generalized spatial skills. <i>Psychonomic Bulletin and Review</i> , 2008, 15, 763-771.	2.8	179

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37	Sequential processes in image generation. <i>Cognitive Psychology</i> , 1988, 20, 319-343.	2.2	177
38	Age Differences in Imagery Abilities. <i>Child Development</i> , 1990, 61, 995-1010.	3.0	177
39	Cognitive Maps in Children and Men. <i>Child Development</i> , 1974, 45, 707.	3.0	173
40	Bridging psychology and biology: the analysis of individuals in groups.. <i>American Psychologist</i> , 2002, 57, 341-351.	4.2	166
41	Mental imagery and aging.. <i>Psychology and Aging</i> , 1994, 9, 90-102.	1.6	164
42	The heterogeneity of mental representation: Ending the imagery debate. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 10089-10092.	7.1	161
43	Retinotopic organization of visual mental images as revealed by functional magnetic resonance imaging. <i>Cognitive Brain Research</i> , 2004, 22, 26-31.	3.0	158
44	Transient Activity in the Human Calcarine Cortex During Visual-Mental Imagery: An Event-Related fMRI Study. <i>Journal of Cognitive Neuroscience</i> , 2000, 12, 15-23.	2.3	157
45	Age Differences in Imagery Abilities. <i>Child Development</i> , 1990, 61, 995.	3.0	155
46	Category and continuum in mental comparisons.. <i>Journal of Experimental Psychology: General</i> , 1977, 106, 341-375.	2.1	148
47	Visual cortex excitability increases during visual mental imagery—a TMS study in healthy human subjects. <i>Brain Research</i> , 2002, 938, 92-97.	2.2	142
48	Neural effects of visualizing and perceiving aversive stimuli. <i>NeuroReport</i> , 1996, 7, 1569-1576.	1.2	135
49	A computational analysis of mental image generation: Evidence from functional dissociations in split-brain patients.. <i>Journal of Experimental Psychology: General</i> , 1985, 114, 311-341.	2.1	134
50	Mental imagery acuity in the peripheral visual field.. <i>Journal of Experimental Psychology: Human Perception and Performance</i> , 1980, 6, 126-139.	0.9	133
51	Implicit transfer of motor strategies in mental rotation. <i>Brain and Cognition</i> , 2003, 52, 135-143.	1.8	131
52	Cognitive Style as Environmentally Sensitive Individual Differences in Cognition. <i>Psychological Science in the Public Interest: A Journal of the American Psychological Society</i> , 2014, 15, 3-33.	10.7	131
53	The relationship of male testosterone to components of mental rotation. <i>Neuropsychologia</i> , 2004, 42, 782-790.	1.6	129
54	Imagined rotations of self versus objects: an fMRI study. <i>Neuropsychologia</i> , 2005, 43, 1351-1361.	1.6	129

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55	Visual mental imagery and visual perception: Structural equivalence revealed by scanning processes. <i>Memory and Cognition</i> , 2008, 36, 849-862.	1.6	121
56	Individual Differences in Cerebral Blood Flow in Area 17 Predict the Time to Evaluate Visualized Letters. <i>Journal of Cognitive Neuroscience</i> , 1996, 8, 78-82.	2.3	118
57	Bringing in the Experts. <i>Small Group Research</i> , 2008, 39, 352-371.	2.7	115
58	The Role of Parts and Spatial Relations in Object Identification. <i>Perception</i> , 1993, 22, 229-248.	1.2	111
59	Deficits in visual cognition and attention following bilateral anterior cingulotomy. <i>Neuropsychologia</i> , 2001, 39, 219-230.	1.6	109
60	Encoding words and pictures: A positron emission tomography study. <i>Neuropsychologia</i> , 1996, 34, 185-194.	1.6	108
61	Mental imagery and sensory experience in congenital blindness. <i>Neuropsychologia</i> , 1988, 26, 1-12.	1.6	105
62	Graphics and Human Information Processing: A Review of Five Books. <i>Journal of the American Statistical Association</i> , 1985, 80, 499-512.	3.1	102
63	Squinting with the mind's eye: Effects of stimulus resolution on imaginal and perceptual comparisons. <i>Memory and Cognition</i> , 1999, 27, 276-287.	1.6	100
64	Visual memory and visual mental imagery recruit common control and sensory regions of the brain. <i>Cognitive Neuroscience</i> , 2012, 3, 14-20.	1.4	99
65	A left hemisphere basis for visual mental imagery?. <i>Neuropsychologia</i> , 1985, 23, 115-118.	1.6	98
66	Generating visual images: Units and relations.. <i>Journal of Experimental Psychology: General</i> , 1983, 112, 278-303.	2.1	97
67	Genes, brain and cognition. <i>Nature Neuroscience</i> , 2001, 4, 1153-1154.	14.8	97
68	Visual mental images can be ambiguous: insights from individual differences in spatial transformation abilities. <i>Cognition</i> , 2002, 86, 57-70.	2.2	95
69	Varieties of size-specific visual selection.. <i>Journal of Experimental Psychology: General</i> , 1989, 118, 148-164.	2.1	93
70	Two types of image generation: Evidence for left and right hemisphere processes. <i>Neuropsychologia</i> , 1995, 33, 1485-1510.	1.6	93
71	Children's drawings as data about internal representations. <i>Journal of Experimental Child Psychology</i> , 1977, 23, 191-211.	1.4	78
72	Neural systems that encode categorical versus coordinate spatial relations: PET investigations. <i>Cognitive, Affective and Behavioral Neuroscience</i> , 1998, 26, 333-347.	1.3	78

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73	Encoding Shape and Spatial Relations: The Role of Receptive Field Size in Coordinating Complementary Representations. <i>Cognitive Science</i> , 1994, 18, 361-386.	1.7	77
74	Mental rotation of objects versus hands: Neural mechanisms revealed by positron emission tomography. <i>Psychophysiology</i> , 1998, 35, 151-161.	2.4	75
75	Form-specific explicit and implicit memory in the right cerebral hemisphere.. <i>Neuropsychology</i> , 1994, 8, 588-597.	1.3	70
76	Detecting high-level and low-level properties in visual images and visual percepts. <i>Cognition</i> , 1997, 63, 209-226.	2.2	70
77	Is Cognitive Neuropsychology Plausible? The Perils of Sitting on a One-Legged Stool. <i>Journal of Cognitive Neuroscience</i> , 1992, 4, 96-105.	2.3	67
78	Visual-spatial abilities of pilots.. <i>Journal of Applied Psychology</i> , 1993, 78, 763-773.	5.3	66
79	How Do the Cerebral Hemispheres Contribute to Encoding Spatial Relations?. <i>Current Directions in Psychological Science</i> , 1998, 7, 8-14.	5.3	66
80	Mental imagery: against the nihilistic hypothesis. <i>Trends in Cognitive Sciences</i> , 2003, 7, 109-111.	7.8	66
81	Enhanced Image Generation Abilities in Deaf Signers: A Right Hemisphere Effect. <i>Brain and Cognition</i> , 1996, 32, 28-44.	1.8	65
82	Hemispheric differences in body image in anorexia nervosa. <i>International Journal of Eating Disorders</i> , 2001, 29, 409-416.	4.0	65
83	Identifying objects at different levels of hierarchy: A positron emission tomography study. <i>Human Brain Mapping</i> , 1995, 3, 107-132.	3.6	63
84	On the pictorial properties of visual images: Effects of image size on memory for words.. <i>Canadian Journal of Psychology</i> , 1977, 31, 32-40.	0.8	62
85	Eye movements during visual mental imagery. <i>Trends in Cognitive Sciences</i> , 2002, 6, 271-272.	7.8	59
86	Construction of the third dimension in mental imagery. <i>Cognitive Psychology</i> , 1988, 20, 344-361.	2.2	57
87	Is time to scan visual images due to demand characteristics?. <i>Memory and Cognition</i> , 1985, 13, 320-332.	1.6	55
88	Visual mental imagery interferes with allocentric orientation judgements. <i>NeuroReport</i> , 1999, 10, 3549-3553.	1.2	55
89	Visual mental imagery during caloric vestibular stimulation. <i>Neuropsychologia</i> , 2006, 44, 101-109.	1.6	55
90	Do separate processes identify objects as exemplars versus members of basic-level categories? Evidence from hemispheric specialization. <i>Brain and Cognition</i> , 2003, 53, 15-27.	1.8	53

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91	Mental Imagery of High- and Low-Resolution Gratings Activates Area 17. <i>NeuroImage</i> , 2001, 14, 454-464.	4.2	50
92	Bridging psychology and biology. The analysis of individuals in groups. <i>American Psychologist</i> , 2002, 57, 341-51.	4.2	50
93	Cerebral lateralization. <i>Current Opinion in Neurobiology</i> , 1993, 3, 183-186.	4.2	49
94	You can play 20 questions with nature and win: Categorical versus coordinate spatial relations as a case study. <i>Neuropsychologia</i> , 2006, 44, 1519-1523.	1.6	49
95	Neural Systems Activated during Visual Mental Imagery. , 2000, , 535-560.		48
96	Neuroimaging evidence for object model verification theory: Role of prefrontal control in visual object categorization. <i>NeuroImage</i> , 2007, 34, 384-398.	4.2	48
97	Two Forms of Spatial Imagery. <i>Psychological Science</i> , 2009, 20, 1245-1253.	3.3	48
98	Integrating visual mental images and visual percepts: new evidence for depictive representations. <i>Psychological Research</i> , 2011, 75, 259-271.	1.7	48
99	Using brain-based measures to compose teams: How individual capabilities and team collaboration strategies jointly shape performance. <i>Social Neuroscience</i> , 2007, 2, 96-105.	1.3	47
100	Coordinate systems in the long-term memory representation of three-dimensional shapes. <i>Cognitive Psychology</i> , 1983, 15, 301-345.	2.2	43
101	The development of spatial relation representations: Evidence from studies of cerebral lateralization. <i>Journal of Experimental Child Psychology</i> , 1990, 50, 119-130.	1.4	43
102	Understanding the effects of task-specific practice in the brain: Insights from individual-differences analyses. <i>Cognitive, Affective and Behavioral Neuroscience</i> , 2005, 5, 235-245.	2.0	42
103	Neural processes underlying self- and other-related lies: An individual difference approach using fMRI. <i>Social Neuroscience</i> , 2009, 4, 539-553.	1.3	42
104	Representations in mental imagery and working memory: Evidence from different types of visual masks. <i>Memory and Cognition</i> , 2012, 40, 204-217.	1.6	42
105	Four types of visual mental imagery processing in upright and tilted observers. <i>Cognitive Brain Research</i> , 2003, 17, 238-247.	3.0	39
106	PowerPoint® Presentation Flaws and Failures: A Psychological Analysis. <i>Frontiers in Psychology</i> , 2012, 3, 230.	2.1	38
107	Individual Differences in Spatial Mental Imagery. <i>Quarterly Journal of Experimental Psychology</i> , 2010, 63, 2031-2050.	1.1	37
108	Two types of image generation: Evidence from PET. <i>Cognitive, Affective and Behavioral Neuroscience</i> , 2005, 5, 41-53.	2.0	36

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109	Does a presentation's medium affect its message? PowerPoint, Prezi, and oral presentations. PLoS ONE, 2017, 12, e0178774.	2.5	35
110	Aging and the Scope of Visual Attention. Gerontology, 1999, 45, 102-109.	2.8	34
111	Chapter 23 A cognitive neuroscience of visual cognition: Further developments. Advances in Psychology, 1991, , 351-381.	0.1	31
112	Mental Imagery of Visual Motion Modifies the Perception of Roll-Vection Stimulation. Perception, 2001, 30, 945-957.	1.2	31
113	Functional anatomy of object recognition in humans. Current Opinion in Neurology, 1997, 10, 5-9.	3.6	30
114	Mental rotation is not easily cognitively penetrable. Journal of Cognitive Psychology, 2011, 23, 60-75.	0.9	29
115	Mental imagery and dyslexia: A deficit in processing multipart visual objects?. Brain and Language, 1991, 41, 381-394.	1.6	28
116	Imagery and hypnotizability revisited. International Journal of Clinical and Experimental Hypnosis, 1998, 46, 363-370.	1.8	27
117	Reflective thinking and mental imagery: A perspective on the development of posttraumatic stress disorder. Development and Psychopathology, 2005, 17, 851-63.	2.3	27
118	Understanding the dorsal and ventral systems of the human cerebral cortex: Beyond dichotomies.. American Psychologist, 2011, 66, 624-632.	4.2	26
119	If you speak slowly, do people read your prose slowly? Person-particular speech recoding during reading. Bulletin of the Psychonomic Society, 1977, 9, 250-252.	0.2	25
120	The Cognitive Neuroscience Approach. , 1999, , 319-365.		25
121	Cognitive Neuroscience and the Human Self. , 1992, , 37-56.		25
122	Does mental simulation of following a path improve navigation performance without vision?. Cognitive Brain Research, 2003, 16, 238-249.	3.0	24
123	Visual imagery in cerebral visual dysfunction. Neurologic Clinics, 2003, 21, 631-646.	1.8	24
124	When does "no" really mean "eyes"? A case study in unilateral visual neglect. Neuropsychologia, 1994, 32, 151-158.	1.6	23
125	Inspecting visual mental images: Can people "see" implicit properties as easily in imagery and perception?. Memory and Cognition, 2008, 36, 1024-1032.	1.6	23
126	A processing approach to the dual coding hypothesis.. Journal of Experimental Psychology Human Learning and Memory, 1976, 2, 223-233.	1.1	22

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127	Receptive Field Characteristics That Allow Parietal Lobe Neurons to Encode Spatial Properties of Visual Input: A Computational Analysis. <i>Journal of Cognitive Neuroscience</i> , 1990, 2, 141-155.	2.3	22
128	Performance on Middle School Geometry Problems With Geometry Clues Matched to Three Different Cognitive Styles. <i>Mind, Brain, and Education</i> , 2008, 2, 188-197.	1.9	22
129	Hemispheric differences in sizes of receptive fields or attentional biases?. <i>Neuropsychology</i> , 1994, 8, 139-147.	1.3	21
130	Understanding the mind's eye...and nose. <i>Nature Neuroscience</i> , 2003, 6, 1124-1125.	14.8	21
131	Effects of depression on sensory/motor vs. central processing in visual mental imagery. <i>Cognition and Emotion</i> , 2006, 20, 737-758.	2.0	21
132	Gestalt laws of perceptual organization in an embedded figures task: Evidence for hemispheric specialization. <i>Neuropsychologia</i> , 1989, 27, 1179-1186.	1.6	20
133	Fear selectively modulates visual mental imagery and visual perception. <i>Quarterly Journal of Experimental Psychology</i> , 2010, 63, 833-839.	1.1	19
134	Representational Correspondence as a Basic Principle of Diagram Design. <i>Lecture Notes in Computer Science</i> , 2005, , 36-57.	1.3	18
135	Varying the scope of attention alters the encoding of categorical and coordinate spatial relations. <i>Neuropsychologia</i> , 2010, 48, 2769-2772.	1.6	18
136	A multidimensional scaling study of visual memory of 5-year olds and adults. <i>Journal of Experimental Child Psychology</i> , 1975, 19, 327-345.	1.4	17
137	Using Locations to Store Shape: An Indirect Effect of a Lesion. <i>Cerebral Cortex</i> , 1993, 3, 567-582.	2.9	17
138	Different cognitive processes in two image-scanning paradigms. <i>Memory and Cognition</i> , 2006, 34, 475-490.	1.6	17
139	The Role of Imagery in Sentence Memory: A Developmental Study. <i>Child Development</i> , 1974, 45, 30.	3.0	16
140	Naming pictures. <i>Journal of Visual Languages and Computing</i> , 1990, 1, 77-95.	1.8	16
141	On computational evidence for different types of spatial relations encoding: Reply to Cook et al. (1995).. <i>Journal of Experimental Psychology: Human Perception and Performance</i> , 1995, 21, 423-431.	0.9	16
142	Structure and Strategy in Image Generation*. <i>Cognitive Science</i> , 1981, 5, 371-383.	1.7	15
143	Sparing of spatial mental imagery in patients with hippocampal lesions. <i>Learning and Memory</i> , 2013, 20, 657-663.	1.3	14
144	Thinking Visually. <i>Mind and Language</i> , 1990, 5, 324-341.	2.3	13

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145	Multimodal images in the brain. , 2010, , 3-16.		13
146	Encoding Categorical and Coordinate Spatial Relations Without Input-Output Correlations: New Simulation Models. Cognitive Science, 1999, 23, 33-51.	1.7	11
147	CRIME ALERT!. Du Bois Review, 2008, 5, 217.	0.6	11
148	Dissociation between visual attention and visual mental imagery. Journal of Cognitive Psychology, 2011, 23, 256-263.	0.9	11
149	The Representation of Left-Right Orientation: A Dissociation Between Imagery and Perceptual Recognition. Visual Cognition, 1999, 6, 497-508.	1.6	10
150	Mental imagery doesn't work like that. Behavioral and Brain Sciences, 2002, 25, 198-200.	0.7	9
151	Fear and anxiety modulate mental rotation. Journal of Cognitive Psychology, 2012, 24, 665-671.	0.9	7
152	Spatial Processing during Mental Imagery: A Neurofunctional Theory. , 2007, , 1-15.		7
153	Multiple Mechanisms of Top-Down Processing in Vision. , 2007, , 21-45.		6
154	The role of the corpus callosum in the representation of lateral orientation. Neuropsychologia, 1993, 31, 675-686.	1.6	5
155	Neural Network Models as Evidence for Different Types of Visual Representations. Cognitive Science, 1995, 19, 575-579.	1.7	4
156	Computer Graphics and Mental Imagery. , 1986, , 305-324.		4
157	An Information-Processing Theory of Mental Imagery: A Case Study in the New Mentalistic Psychology. PSA Proceedings of the Biennial Meeting of the Philosophy of Science Association, 1980, 1980, 247-266.	0.1	3
158	The judgement of absence in neglect. Neuropsychologia, 1998, 36, 797-802.	1.6	3
159	Connectionism: There's something to it. Behavioral and Brain Sciences, 1985, 8, 297-298.	0.7	2
160	IMAGES IN THE COMPUTER AND IMAGES IN THE BRAIN. Computational Intelligence, 1993, 9, 340-342.	3.2	2
161	Science, Culture, Meaning, Values: A Dialogue. Annals of the New York Academy of Sciences, 2001, 935, 233-257.	3.8	1
162	Assessing habitual use of dorsal versus ventral brain processes: The dorsal-ventral questionnaire. Biologically Inspired Cognitive Architectures, 2012, 2, 68-76.	0.9	1

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163	Seeing and Imagining in the Cerebral Hemispheres: A Computational Approach. , 1988, , 615-642.		1