

Chapter III. The phenomenology of seeing

3.1. What you get ain't what you see

(Anstis 1970, Carrasco 2011, Eagleman 2001, Fahle & Zrenner 1991, Firestone & Scholl 2015, Green & Swets 1966, Horowitz & Wolfe 1998, Ishai & Sagi 1995, James 1890, Johansson 1973, Julesz 1991, Julesz 1995, Knill & Richards 1996, Kosslyn 1994, Mooney 1957, O'Regan et al 1999, Purves & Lotto 2003, Pylyshyn 2003, Reagan 2000, Simons & Rensink 2005, Treisman & Gelade 1980, Wolfe 2007, Wolfe & Horowitz 2004)

3.2. The whole can be more than the parts

(Biederman 1987, Busey & Vanderkolk 2005, Gauthier et al 1999, Nakayama et al 1995, Nakayama & Shimojo 1990, Rock 1981, Spillmann & Ehrenstein 2003, Tanaka & Farah 1993, Ullman et al 2016, Valentine 1988, Yin 1969, Young et al 1987)

3.3. The visual system tolerates large image transformations

(Biederman & Bar 1999, Biederman & Cooper 1991a, Borges 1951, Bulthoff & Edelman 1992, Bulthoff et al 1995, Cooper et al 1992, Edelman 1995, Edelman & Duvdevani-Bar 1997, Geirhos et al 2018, Marr & Nishihara 1978, Sanocki 2001, Shepard & Metzler 1971, Sinha 2002)

3.4. Pattern completion: inferring the whole from visible parts

(Biederman & Cooper 1991b, Bregman 1981, Brown & Koch 1993, Brown & Koch 2000, Gosselin & Schyns 2001, Johnson & Olshausen 2005b, Kellman et al 1998, Nakayama et al 1995, Rauschenberger & Yantis 2001, Sekuler & Palmer 1992, Shimojo & Nakayama 1990, Singh 2004, Tang & Kreiman 2017, Tang et al 2018, Ullman et al 2016)

3.5. Visual recognition is very fast

(Anstis 1970, Brockmole et al 2002, Cauchoix et al 2016, Coltheart 1980, Enns & Di Lollo 2000, Fahrenfort et al 2007, Felsten & Wasserman 1980, Intraub 1980, Johansson 1973, Johnson & Olshausen 2005a, Johnson & Olshausen 2003, Kellman & Cohen 1984, Kirchner & Thorpe 2006, Li et al 2002, Potter & Levy 1969, Singer & Kreiman 2014, Tang et al 2018, Thorpe et al 1996, Vanrullen 2011, vanRullen & Thorpe 2002, Vernon 1954, Wiggs & Martin 1998)

3.6. Spatial context matters

(Castelhana & Heaven 2010, Dolan et al 1997, Eagleman 2001, Oliva & Torralba 2007, Sinha & Poggio 1996, Spillmann & Werner 1996, Vo et al 2019)

3.7. The value of experience

(Di Lollo 1977, Di Lollo 1980, Di Lollo et al 1988, Gauthier et al 1999, Gauthier & Logothetis 2000, Gauthier & Nelson 2001, Gauthier & Tarr 1997, Karni & Sagi 1993, Mooney 1957, Standing 1973, Thompson & Burr 2009, Wallraven & Bulthoff 2001, Wang et al 2005, Whitaker & McGraw 2000)

3.8. People are the same wherever you go

(Bargary et al 2017, Beck et al 2012, Bosten et al 2017, Mollon et al 2017)

3.9. Animals excel at vision too

(Allman & McGuinness 1988, Allman 1999, Bovet & Vauclair 2001, Carmona et al 2010, Egelhaaf & Warzecha 1999, Fabre-Thorpe 2003, Fize et al 2011, Gonzalez-Bellido et al 2013, Hatsopoulos et al 1995, Herrnstein 1990, Judd & Collet 1998, Nielsen et al 2006, Nilsson & Marshall 2020, Rajalingham et al 2018, Srihasam et al 2012, Tomonaga & Matsuzawa 1992, Zoccolan et al 2009)

3.10. References

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