

## **Chapter VI From the highest echelons of visual processing to cognition**

(Afraz et al 2015, Damasio 1990, Dean 1976, Forde & Humphreys 1999, Gross 1994, Humphreys & Riddoch 1993, Kourtzi & Connor 2011, Kreiman 2007, Logothetis & Sheinberg 1996, Schmolesky et al 1998, Tanaka 1996, Van Essen et al 1992, Weiskrantz & Saunders 1984)

### **VI.1. A well-connected area**

(Distler et al 1993, Felleman & Van Essen 1991, Logothetis & Sheinberg 1996, Markov et al 2014, Tanaka 1996)

### **VI.2. ITC neurons show shape selectivity**

(Brincat & Connor 2006, Brincat & Connor 2004, Cauchoix et al 2016, Connor et al 2007, Coogan 1993, Desimone 1991, Desimone et al 1984, DiCarlo & Maunsell 2004, Freiwald & Tsao 2010, Fujita et al 1992, Gawne & Richmond 1993, Gerstein et al 1968, Gross et al 1969, Hung et al 2005, Kobatake & Tanaka 1994, Lehky & Sereno 2007, Leopold et al 2006, Logothetis & Pauls 1995, Logothetis et al 1994, Logothetis et al 1995, McMahon et al 2014, Miyashita & Chang 1988, Moeller et al 2008, Optican & Richmond 1987, Perrett et al 1982, Richmond et al 1990, Rolls 1991, Rolls 1984, Schwartz et al 1983, Tanaka 1993, Tovee & Rolls 1995, Tovee 1994, Tsunoda et al 2001, Ungerleider & Bell 2011, Yamane et al 2008, Young & Yamane 1992)

### **VI.3. Selectivity in human ventral visual cortex**

(Agam et al 2010, Allison et al 1994a, Allison et al 1994b, Allison et al 1999, Bansal et al 2014, Bansal et al 2012, Liu et al 2009, Lucas et al 2003, Mukamel & Fried 2012, Orban 2004, Privman et al 2007, Puce et al 1999, Ray et al 2008, Sereno & Tootell 2005, Tang et al 2014, Wilson et al 1983, Yoshor et al 2007a, Yoshor et al 2007b)

### **VI.4. What do ITC neurons *really* want?**

(Kobatake & Tanaka 1994, Nguyen et al 2016, Ponce et al 2019, Yamane et al 2008)

### **VI.5. ITC neurons show tolerance to object transformations**

(Hung et al 2005, Ito et al 1995, Kreiman et al 2000a, Logothetis & Pauls 1995, Logothetis & Sheinberg 1996, Miller et al 1993, Quian Quiroga et al 2005, Sary et al 1993)

### **VI.6. Neurons can complete patterns**

(Fyall et al 2017, Kosai et al 2014, Kovacs et al 1995b, Missal et al 1997, Murray et al 2006, Sehatpour et al 2006, Tang et al 2014, Tang et al 2018)

### **VI.7. IT takes a village**

(Abbott et al 1996, Hung et al 2005, Kreiman 2017, Lettvin et al 1968, Rolls 1991)

### **VI.8. ITC neurons are more concerned with shape than semantics**

(Bowers 2009, Freedman et al 2001, Freedman et al 2003, Gross 2002, Kiani et al 2007, Kreiman 2019, Kreiman et al 2000a, Kreiman et al 2000b, Martin et al 1996, Meyers et al 2008, Quian Quiroga et al 2005, Sigala & Logothetis 2002, Sugase et al 1999, Thomas et al 2001, Vogels 1999a, Vogels 1999b)

### **VI.9. Neuronal responses adapt**

(Rodman et al 1991, Vinken et al 2020, Vinken et al 2017)

### **VI.10. Representing visual information in the absence of a visual stimulus**

(Baddeley 1998, Chelazzi et al 1998, Chelazzi et al 2001, Eskandar et al 1992, Kreiman et al 2000b, Miyashita & Chang 1988, Miyashita & Hayashi 2000, O Scalaidhe et al 1999, Woloszyn & Sheinberg 2009, Yakovlev et al 1998)

### **VI.11. Tasks and goals also modulate neuronal responses**

(Baldauf & Desimone 2014, Bansal et al 2013, Bar et al 2006, Bichot et al 2015, Bichot et al 2005, Connor et al 1997, Davidesco et al 2013, Desimone & Duncan 1995, Fahrenfort et al 2007, Fries et al 2001, Lamme & Roelfsema 2000, Lamme et al 2002, Maunsell & Treue 2006, Maunsell 1995, Mazer & Gallant 2003, McAdams & Maunsell 1999, Meyers et al 2009, Miller & Buschman 2012, Moore & Armstrong 2003, Moore et al 2003, Moran & Desimone 1985, Naya et al 1996, Seidl et al 2012, Sheinberg & Logothetis 2001)

### **VI.12. The role of experience in shaping neuronal tuning preferences**

(Arcaro & Livingstone 2017, Arcaro et al 2017, Baker et al 2002, Crair et al 1998, Daw & Wyatt 1976, Held & Hein 1963, Hubel & Wiesel 1963, Huberman et al 2008, Keysers & Perrett 2002, Keysers et al 2001, Kovacs et al 1995a, Li & Dicarlo 2008, Madhavan et al 2019, Messinger et al 2001, Miyashita 1988, Op De Beeck et al 2007, Paik & Ringach 2011, Rolls et al 1999, Sakai & Miyashita

1991, Sherk & Stryker 1976, Srihasam et al 2012, Srihasam et al 2014, Sugita 2008, White et al 2001, Woloszyn & Sheinberg 2009)

### VI.13. The bridge between vision and cognition

(Buschman & Miller 2007, Buschman & Miller 2009, Chelazzi et al 1993, Ullman 1984)

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