6 Evidence

Who/When	WTDD	Method	ROF	Implications	Ps	DV	Section
Baddeley (1966)	Phonemic (man, can, cad)/semantic (huge, big, large) similarity	Experiment	STM sensitive to phonemic interference, LTM to semantic interference	Phonemic similarity effect (PSE). Different representations STM=auditory; LTM=semantic			1.2 Distinction between STM and LTM
Shallice & Warrington (1970)	Tests of STM, LTM, intelligence, spoken language comprehension	Neuropsychology Case study	2 item auditory digit span No general impairment of learning, comprehension and reasoning.	STM (impaired)/LTM (spared) distinct STM as working memory	KF Brain damage from road accident		1.2 Distinction between STM and LTM
Daneman & Carpenter (1980)	Reading span (fact questions, verbal questions, verbal SATs)	Individual differences	Better than word span at predicting reading comprehension. Same finding for listening span.	Word/digit span tax storage but not processing. WM source of individual differences in language comprehension	~20 college students	word recall	1.3 Working memory as more than STM
Turner & Engle (1989)	Operation span		Better than STM span at predicting **reading comprehension**				1.3 Working memory as more than STM

Who/When	WTDD	Method	ROF	Implications	Ps	DV	Section
Baddeley & Hitch (1974)	T1: Reasoning task 'A precedes B – AB?' + T2: repeat random digits (near digit span limit) T3: count 1-6 (LTM)	Dual-task	T2: interferes, especially as T1 difficulty increases T3: little effect	Tasks compete for limited capacity 'workspace' that allocates storage *or* processing WM is more than STM			1.3 Working memory as more than STM
Baddeley & Hitch (1974)	T1: Reasoning task 'A precedes B – AB?' Phonemically similar (AB)/dissimilar (MC) Jumbled/meaningful sentences x Rhyming/non-rhyming words.	Dual-task	Phonemic similarity mildly disrupts reasoning and comprehension.	2 components Articulatory loop Central executive			2.1 A multicomponent model
De Renzi & Nichelli (1975)	Corsi span, auditory digit span	Neuropsychology	Spatial/Auditory double dissociation	Distinct PL/VSS	Patients with different lesions		2.1 A multicomponent model
Baddeley & Lieberman (1980)	T1: visual imagery mnemonic T2: spatial (blindfold loudspeaker tracking/visual (black field brightness detection)	Dual-task	T1 only disrupted by T2=spatial	Mental imagery spatial not visual			2.1 A multicomponent model

Who/When	WTDD	Method	ROF	Implications	Ps	DV	Section
Hitch et al. (1995)	Superimpose mental images with positive/negative contrast		Better performance when superimposed mental image contrasts congruent	Some mental imagery visual			2.1 A multicomponent model
Smyth & Waller (1998)	T1: Imagine familiar rock climbing routes T2: Disrupt visual/spatial/kinaesthetic	Dual-task	Multiple representations	Complex imagery in skilled movement	Rock climbers		2.1 A multicomponent model
Baddeley et al. (1975)	Phonemic similarity X Word length	Experiment	Span higher for shorter (harm) than longer (hippopotamus) items	Word length effect (WLE) Auditory span varies with time (not number of items cf. Miller)			2.2 Phonological working memory
Baddeley et al. (1975)	Word length	Individual differences	Faster speakers recall more than slower speakers	Faster rehearsal explains WLE Slower decay explains PSE	Adults		2.2 Phonological working memory
Baddeley et al. (1975)	T1: immediate serial recall T2: articulatory suppression during learning	Dual-task	Suppression disrupts recall. Removes differences in **WLE** and **PSE** (visual stimuli only)	Disrupts articulatory loop			2.2 Phonological working memory

Who/When	WTDD	Method	ROF	Implications	Ps	DV	Section
Baddeley et al. (1984)	As Baddeley et al. (1975) but suppression during learning *and* recall	Dual-task	For auditory presentation, removes WLE but not PSE.	Decaying phonological store (PS) (explains PSE) and control process of sub-vocal rehearsal (explains WLE).			2.2 Phonological working memory
Nicholson (1981); Hulme et al. (1984)	Word length	Individual differences	As children age mean word recall increases with mean speech rate	Explains developmental growth in memory span	Children	Word recall	2.2.1 Developmental and cross-linguistic differences
Naveh-Benjamin & Ayres (1986)	Digit span x language spoken		Correlated with articulation rate for language	2 component PL			2.2.1 Developmental and cross-linguistic differences
Hitch et al. (1989)	Word length x spoken words/nameable pictures	Experiment	With increasing word length: ~7+ worse recall for words & pictures. Younger worse recall only for words. For pictures ~7+ worse for phonemic similarity, younger for visual similarity.	Auditory auto to PL, visual need recoding. Slow to develop so younger rely on VSS.	Children		2.2.1 Developmental and cross-linguistic differences

Who/When	WTDD	Method	ROF	Implications	Ps	DV	Section
Salamé & Baddeley (1982)	Visually presented verbal stimuli x Irrelevant speech/noise	Experiment	Speech interferes more than noise. AS removes **irrelevant speech effect.**	Unattended speech enters PS, non-speech doesn't. But cf. serial order interpretation Macken & Jones (1995)			2.2.2 The irrelevant speech effect
Vallar & Baddeley (1984)	Memory span for spoken sequences	Neuropsycholo gy	WSE no WLE	Damaged PS	PV; L. parietal; auditory digit span = 2; fluent articulation		2.2.3 Neural basis
	Memory span for visually presented verbal stimuli		Higher than auditory span, no WSE or WLE.	Use of VSS cf. early development in children.			
Paulesu et al. (1993)	T1: verbal memory (storage/rehearsal) T2: rhyme judgement (rehearsal) T3 (control): neither	PET (subtractive)	Different locations for storage and rehearsal.	AL Broca's area PS L. supramarginal gyrus + Vallar & Baddeley (1984)			2.2.3 Neural basis
Baddeley et al. (1988)	Word-pair learning. Italian-Italian Italian-Russian	Experiment	Learning: Italian-Italian: normal Italian-Russian: none Dissociation between learning new word forms and new associations between familiar	STM-LTM interaction. (Phonological) WM mostly affects vocabulary acquisition.	PV Italian Impaired phonologic al store		3.1 Neuropsych ological evidence

Who/When	WTDD	Method	ROF	Implications	Ps	DV	Section
			words.				
Baddeley et al. (1998)		Individual differences	Auditory digit span correlates with performance on vocabulary test	Vocabulary acquisition associated with phonological WM capacity	Children		3.2 Individual differences
Gathercole et al. (1997)		Individual differences	Individual differences in PL capacity predict performance on simulated vocabulary learning.	Effect direction is non-word repetition → vocabulary acquisition.	Children (5yrs)		3.2 Individual differences
Service (1992)	Repeat English-sounding nonwords before learning English.	Individual differences	Performance predicted English vocabulary 2 years later.	PL correlates with second-language learning.	Finnish children		3.2 Individual differences
Papagno & Vallar (1995)	1:Auditory digit span. 2:Non-word repetition. 3:Word-pair learning.	Individual differences	1&2: polyglots > controls 3: word-nonword: polyglots > controls word-word: polyglots=controls	PL correlates with language ability in general.	Adults fluent in at least 3 languages		3.2 Individual differences
Papagno & Vallar (1992)	Word-Word Word-Nonword Increasing phonemic similarity or number of syllables.	Experiment	Nonword: impairs learning. Word: no effect	PL specific to learning novel words.	Adults		3.3 Experimental studies

Who/When	WTDD	Method	ROF	Implications	Ps	DV	Section
Papagno et al. (1991)	Word-Word Word-Nonword Articulatory suppression	Experiment	Word-Nonword: impedes Word-Word: no effect	PL specific to learning novel words.	Adults		3.3 Experimental studies
Baddeley (2003)	**Working memory and language: an overview**						Offprint