The effects of local and global factors on the comprehension of pronouns

Crawley, Rosalind Anne

The effects of local and global factors on the comprehension of pronouns

Rosalind Anne Crawley
1985

A thesis in two volumes submitted for the degree of Doctor of Philosophy in the University of Durham.

Volume 2

Department of Psychology
University of Durham

Table of Contents

Volume 2

APPENDIX

Materials, tables of means and analysis of variance summary tables

Table A 2.1 Experimental passages used in Experiment 1

An ambiguous version of each passage is shown. The name which was changed in the unambiguous version and the name which was substituted are shown at the end of each passage. The target sentences are presented in Condition T = S and are underlined.

1 MARY

Mary usually got on very well with her younger sister Jenny even though she didn't see her very often any more. So when her parents went away on holiday for a fortnight she moved back home to keep Jenny company. Mary had a flat on the other side of town but she was quite pleased to come home once in a while. Today was Saturday and she didn't have any plans for the weekend. Mary asked Jenny to phone the theatre to see what was on when she joined her for breakfast. They had to do some shopping in the morning because they had some friends coming for lunch on Sunday but that didn't take them very long.

(Jenny = Peter in the unambiguous version.)

Questions	Correct answer
1 Mary lived at home all the time.	False
2 Their parents were on holiday.	True
3 Mary joined Jenny for breakfast.	

2 JAMES

James didn't like going to school at all. Even though this was only his second year there he had made up his mind to leave as soon as he could. His teachers told him off even when he was trying to be good so he'd decided it wasn't worth trying anymore. In any case one of the other children in his class called Andrew was always getting him into trouble. Last Friday Andrew had pinched his new water pistol and then James had started fighting Andrew and he kicked him just as the teacher came out into the playground. She told them both off and James didn't think it was fair because Andrew had started it.

(Andrew = Elaine in the unambiguous version.)

Questions	Correct answer
1 James had been at school for seven years.	False
2 The teacher told them both off.	True
3 James kicked Andrew.	

3 JANE

Jane was tired of being told that she wasn't as clever as her sister Monica. At school her teachers often told her that she would have to do better if she was going to do as well as her sister. She tried hard to get good marks but even when she was pleased with her results her parents and teachers didn't seem satisfied. One thing that she was quite good at was chess. Jane often played against Monica and she usually beat her. Most of the time they got on

quite well together despite the comparisons that others made between them.

(Jane = Carl in the unambiguous version.)

Questions	Correct answer
1 Jane was told that she wasn't as clever as her sister.	True
2 Jane's teachers were satisfied with her marks.	False
3 Jane usually beat Monica at chess.	

4 SARAH

Sarah had always wanted to go to University and her parents had encouraged her to go but she wasn't very happy now she was there. She didn't really enjoy her course and she was finding it hard to settle in to her new way of life. She found that she missed her home town and her friends there much more than she ever thought she would. In particular she missed her friend Trish who still lived at home. Sarah went to see Trish and she told her what had been happening since they had been apart. Sarah decided to stay at University at least until the end of her first term and then make up her mind what to do.

(Trish = Clive in the unambiguous version.)

Questions	Correct answer
1 Sarah was finding it hard to settle down.	True
2 Sarah's parents discouraged her from going to University.	False
3 Sarah told Trish what had been happening since they had been apart.	

5 SHAUN

Shaun started to get worried as it became darker and the mist grew thicker. He was the leader of this walking expedition in the Lake District and he felt responsible for the others following him. He hadn't realised it would take then so long to walk back. They came to a place where the path narrowed over a steep drop and Shaun decided to go ahead with his friend Ben to make sure it was safe before the others followed. Shaun led Ben along the path and he called to him to be careful. They got safely over to the proper path and shouted to the others that it was all right and eventually they all made their way down to their minibus at the bottom.

(Shaun = Clare in the unambiguous version.)

Questions	Correct answer
1 Shaun was the leader of the expedition.	True
2 They were walking in Wales.	False
3 Shaun called to Ben to be careful.	

6 MR BENTLEY

Mr Bentley was on his way to see his mother in Okehampton. He didn't like driving long distances but it was difficult to get to Okehampton by train. He always drove carefully and it was lucky that he did because as he turned one corner he came across a herd of cows blocking the road.

Fortunately he stopped in time but he thought it was very dangerous because they were hidden by the sharp bend so he stopped the man in the car behind. Mr Bentley talked to the car driver and he told him that they wouldn't be long because the cows only had to go into the next field. The rest of the journey passed uneventfully and Mr Bentley arrived at his mother's house just before it got dark.
(Man = woman in fourth sentence in the unambiguous version.)

Questions	Correct answer
1 Mr Bentley was driving to see his wife.	False
2 The cows were hidden by a bend.	True
3 Mr Bentley told the car driver that they wouldn't have to wait long.	

7 HERBIE

Herbie had been planning the raid on the Drug Store for weeks and he had gone over every detail so carefully that he was sure it would work. When the day finally arrived he became very nervous and at the last minute he took a gun with him in case anything went wrong - and things did go wrong. The owner was still there when he arrived and before Herbie could stop him he had pressed the alarm so in his panic Herbie fired at him wounding him in the arm. Herbie quickly gathered together all the spare cash he could find but just as he was leaving a police car screamed round the corner and a policeman jumped out. Herbie saw the policeman and he shot at him but this time nobody was hurt. Herbie tried to get across to his car on the other side of the road but he was overpowered before he reached it.

(Policeman = policewoman in the unambiguous version.)

Questions	Correct answer
1 Herbie had planned the raid at the last minute.	False
2 The owner set off the alarm.	True
3 Herbie shot at the policeman.	

8 DIANE

Diane was very keen on outdoor sports and she would have loved to be able to sail but she couldn't afford lessons while she was still at school. She was very interested to see that the new people who had moved in next door had a sailing dinghy. It was a small one and ideal for beginners to learn in. There was a girl about her own age in the family called Nicola and she soon called round to see her. Diane liked Nicola straight away and after they had been talking for a while she asked her if she enjoyed sailing. They arranged to go sailing that weekend if the weather was fine and Nicola's father would take them.

(Diane = Colin in the unambiguous version.)

Questions	Correct answer
1 Diane liked outdoor sports.	True
2 The family next door had lived there for years.	False
3 Diane asked Nicola if she enjoyed sailing.	

9 MR ROBERTS

Mr Roberts usually dreaded going on holiday with his family but this year he was looking forward to it. He was having problems at work so he welcomed the break and he was pleased to have persuaded his family to go to Wales this year for a change. In fact he did enjoy his holiday this year more than he had done for years. He even enjoyed going down to the beach with his son Jonathan and his daughter Caroline. On the second afternoon they were there Mr Roberts taught Jonathan how to make a kite and he showed him how to make it fly properly. By the end of the holiday Mr Roberts felt refreshed and ready to go back to work.

(Jonathan = Caroline in the unambiguous version.)

Questions	Correct answer
1 Mr Roberts was having problems at work.	True
2 They were on holiday in Scotland.	False
3 Mr Roberts showed Jonathan how to make the kite fly properly.	

10 SIMON

Simon had only just joined the firm and he felt ill at ease with the other people in his office and unsure of himself in his new job. He didn't give that impression though because he made a great effort to appear happy and confident while he was at work. But in the evenings when he was on his own he felt quite miserable. One of the other people in his office had only just started there too and his name was Geoff. Simon knew Geoff and he envied him although he had no reason to. The other people in the office were very friendly and after a few weeks things didn't seem so bad.

(Simon = Penny in the unambiguous version.)

Questions	Correct answer
1 Simon had only just joined the firm.	True
2 The other people in the office were unfriendly.	False
3 Simon envied Geoff.	

11 FIONA

Fiona was feeling a bit fed up with being at home on her own. She was used to having a lot of people around her and she didn't like it when things were so quiet. Sunday afternoons were always dull in her opinion if she didn't go away for the weekend. She felt in a pensive mood so she decided to go for a walk by the river and on her way down the steep slope that led to the river she saw her friend Anna in the distance. Fiona waved at Anna and she smiled at her. Anna didn't have anything to do and it was a sunny afternoon so they walked by the river together and Fiona felt a lot better when she got home.

(Anna = Adam in the unambiguous version.)

Questions	Correct answer
1 Fiona was feeling miserable on her own.	True
2 It was raining.	False
3 Fiona smiled at Anna.	

12 RORY

Rory was very fierce - in fact everyone said he was the most dangerous dog in the neighbourhood. Rory belonged to a couple who were out at work all day and he was often left to roam the streets on his own. A lot of people in the area had young children and they were afraid to let them near him. In comparison the little poodle called Alfie who lived down the same street was very friendly. Rory met Alfie on the street one day and he bit him. This led to a big fight which Alfie's owners heard and they rushed out into the street to part them.

(Alfie = Sally in the unambiguous version.)

Questions	Correct answer
1 Rory was a gentle dog.	False
2 A lot of people in the area had young children.	True
3 Rory bit Alfie.	

Table A 2.2 One of the filler passages used in Experiment 1

1 MELANIE

Melanie was watching a film on television when her mother came in and asked her to go and buy some lemonade and crisps for supper. Melanie didn't want to go but she knew there was no point in arguing. The film was just getting exciting so she asked her sister Gillian to watch what happened and then she ran down to the shop at the corner of the road. It wasn't until she had asked for what she wanted that she realised that she had forgotten her purse. Luckily she knew Mr Shaw who owned the shop quite well and he said she could pay him next time she came in. She ran back home and was annoyed to find that Gillian had switched the film off and was listening to the radio instead.

Questions	Correct answer
1 Melanie was reading a book.	False
2 The shop was at the corner of the road.	True
3 Melanie asked Gillian to watch what happened in the film while she was out.	True

Table A 2.3 Number of true and false answers required for correct answers to the questions used in Experiment 1

	PASSAGES					
	EXPERIMENTAL				FILLER	
	Ambiguous		Unambiguous			
Question about	True	False	True	False	True	False
Topic	7	5	7	5	6	9
General	5	7	5	7	10	5
Critical ques.	-	-	6	6	6	8
Total	12	12	18	18	22	22

Critical ques. = Critical question about the topic and nontopic to determine assignment.

The number of true and false responses for each question type was originally equal, but one passage intended as an experimental passage was excluded from the analysis and treated as a filler passage instead (because it contained plural pronouns).

Table A 2.4 Design of Experiment 1

Group of Subjects (10 per group)	Experimental passage											
	1	2	3	4	5	6	7	8	9	10	11	12
1	Aa 4	Ab 5	Ba 6	Bb 1	Ca 2	Cb 3	Fa 4	Fb 5	Da 6	Db 1	Ea 2	Eb 3
2	Bb 5	Ba 6	Cb 1	Ca 2	Fb 3	Fa 4	Db 5	Da 6	Eb 1	Ea 2	Ab 3	Aa 4
3	Ca 6	Cb 1	Fa 2	Fb 3	Da 4	Db 5	Ea 6	Eb 1	Aa 2	Ab 3	Ba 4	Bb 5
4	Fb 1	Fa 2	Db 3	Da 4	Eb 5	Ea 6	Ab 1	Aa 2	Bb 3	Ba 4	Cb 5	Ca 6
5	Da 2	Db 3	Ea 4	Eb 5	Aa 6	Ab 1	Ba 2	Bb 3	Ca 4	Cb 5	Fa 6	Fb 1
6	Eb 3	Ea 4	Ab 5	Aa 6	Bb 1	Ba 2	Cb 3	Ca 4	Fb 5	Fa 6	Db 1	Da 2
7	Ab 4	Aa 5	Bb 6	Ba 1	Cb 2	Ca 3	Fb 4	Fa 5	Db 6	Da 1	Eb 2	Ea 3
8	Ba 5	Bb 6	Ca 1	Cb 2	Fa 3	Fb 4	Da 5	Db 6	Ea 1	Eb 2	Aa 3	Ab 4
9	Cb 6	Ca 1	Fb 2	Fa 3	Db 4	Da 5	Eb 6	Ea 1	Ab 2	Aa 3	Bb 4	Ba 5
10	Fa 1	Fb 2	Da 3	Db 4	Ea 5	Eb 6	Aa 1	Ab 2	Ba 3	Bb 4	Ca 5	Cb 6
11	Db 2	Da 3	Eb 4	Ea 5	Ab 6	Aa 1	Bb 2	Ba 3	Cb 4	Ca 5	Fb 6	Fa 1
12	Ea 3	Eb 4	Aa 5	Ab 6	Ba 1	Bb 2	Ca 3	Cb 4	Fa 5	Fb 6	Da 1	Db 2

Target sentence:
A = Ambiguous, T = S
B = Ambiguous, NT = S
C = Unambiguous, TS
D = Unambiguous, TO
E = Unambiguous, NTS
F = Unambiguous, NTO

Question orders (where Question 1 = about topic, 2 = general and 3 = critical question in experimental passages, about 'topic' and 'nontopic' in filler passages):-
1 = 1, 2, 3; 2 = 1, 3, 2; 3 = 2, 1, 3; 4 = 2, 3, 1; 5 = 3, 1, 2; 6 = 3, 2, 1.
Critical question:- a: T = S, b: NT = S.

Table A 2.5 Number of assignments to the subject and object in each passage by condition - Experiment 1, ambiguous passages

Passage	Assignment to:	TOPIC = SUBJECT		NONTOPIC = SUBJECT	
		Subject	Object	Subject	Object
1	MARY	13	7	12	8
2	JAMES	18	2	9	11
3	JANE	18	2	12	8
4	SARAH	15	5	17	3
5	SHAUN	17	3	14	6
6	MR BENTLEY	12	8	15	5
7	HERBIE	19	1	12	8
8	DIANE	16	4	15	5
9	MR ROBERTS	20	0	17	3
10	SIMON	18	2	15	5
11	FIONA	10	10	13	7
12	RORY	18	2	16	4
Total		194	46	167	73
Mean		16.2	3.8	13.9	6.1

Table A 2.6 Summary tables for the analyses of variance of assignments - Experiment 1, ambiguous passages

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	119	0.00			
Within readers	360	305.98			
T = S / NT = S *	1	0.00	0.00		
Error (a)	119	0.00	0.00		
Assignment (S/O)	1	122.00	122.00	159.57	0.0000
Error (b)	119	90.98	0.76		
T / NT = S x Assignment	1	6.07	6.07	8.31	0.0049
Error (ab)	119	86.93	0.73		
Total		305.98			

Significant main effect of assignment (more to the subject) and significant interaction between subject of sentence and assignment to the subject or object.

F_2 Analysis by passages

Source	df	Sum of Squares	Mean Squares	F_2	p
Between passages	11	0.00			
Within passages	36	1614.14			
T = S / NT = S *	1	0.00	0.00		
Error (a)	11	0.00	0.00		
Assignment (S/O)	1	1220.18	1220.18	77.59	0.00003
Error (b)	11	172.99	15.73		
T / NT = S x Assignment	1	60.73	60.73	4.17	0.06352
Error (ab)	11	160.24	14.57		
Total		1614.14			

Significant main effect of assignment (more to the subject) and significant interaction between subject of sentence and assignment to the subject or object.

* T = S / NT = S sum of squares is simply picking up the difference in the number of passages used in the two conditions and is necessarily constrained to zero.

Table A 2.7 Number of words in the target sentence of each passage in Experiment 1

Passage		Number of words in target sentence
1	MARY	18
2	JAMES	29
3	JANE/CARL	10
4	SARAH	18
5	SHAUN/CLARE	14
6	MR BENTLEY	27
7	HERBIE/HERB	15
8	DIANE/COLIN	21
9	MR ROBERTS	26
10	SIMON/PENNY	13
11	FIONA	9
12	RORY	12
Range		9 - 29
Mean		17.7

Table A 2.8 Mean reading rates (words per second) for each passage by condition - Experiment 1, ambiguous passages

	Passage	Topic = Subject	Nontopic = Subject
1	MARY	3.17	3.46
2	JAMES	3.83	3.57
3	JANE	4.21	2.02
4	SARAH	4.96	4.79
5	SHAUN	4.10	3.39
6	MR BENTLEY	3.61	4.48
7	HERBIE	4.01	3.76
8	DIANE	4.28	4.00
9	MR ROBERTS	4.84	3.76
10	SIMON	4.80	3.12
11	FIONA	4.59	3.56
12	RORY	4.75	3.98
Overall mean		4.26	3.66

Table A 2.9 Summary tables for the analyses of variance of reading rates by condition - Experiment 1, ambiguous passages

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	119	325.21			
Within readers	119*	143.60			
T = S / NT = S	1	21.43	21.43	20.88	0.00008
Error	118*	122.17	1.03		
Total		468.81			

* Degrees of freedom adjusted to take account of rate calculated by Winer's formula.

Significant main effect of subject of sentence (T = S faster than NT = S).

F_2 Analysis by passages

Source	df	Sum of Squares	Mean Squares	F_2	p
Between passages	11	4.84			
Within passages	12	6.01			
T = S / NT = S	1	2.20	2.20	6.33	0.027
Error	11	3.81	0.35		
Total		10.85			

Significant main effect of subject of sentence (T = S faster than NT = S).

Table A 2.10 Mean reading rates (words per second) for each passage by condition and assignment - Experiment 1, ambiguous passages

Assignment to:		Topic = Subject		Nontopic = Subject	
		Subject	Object	Subject	Object
Passage					
1	MARY	3.39	2.77	3.38	3.59
2	JAMES	3.69	5.04	3.44	3.68
3	JANE	4.31	3.36	2.11	1.88
4	SARAH	5.15	4.36	4.93	3.62
5	SHAUN	3.95	4.95	2.79	4.80
6	MR BENTLEY	3.40	3.93	4.58	4.18
7	HERBIE	3.98	4.59	3.73	3.80
8	DIANE	4.41	3.76	3.89	4.35
9	MR ROBERTS	4.84	4.30*	3.74	3.85
10	SIMON	5.00	2.92	3.36	2.25
11	FIONA	5.03	4.15	3.52	3.65
12	RORY	4.88	3.63	3.94	4.15
Overall means		4.34	3.98	3.62	3.65

* Calculated using Winer's formula

Table A 2.11 Summary tables for the analyses of variance of reading rates by condition and assignment - Experiment 1, ambiguous passages

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	11	7.47			
Within readers	36	17.93			
T = S / NT = S	1	2.53	2.53	6.82	0.023
Error (a)	11	4.07	0.37		
Assignment (S/O)	1	0.88	0.88	1.91	0.193
Error (b)	11	5.06	0.46		
T / NT = S x Assignment	1	0.08	0.08	0.17	0.692
Error (ab)	11	5.31	0.48		
Total		25.40			

Significant main effect of subject of sentence (T = S faster than NT = S).

F_2 Analysis by passages

Source	df	Sum of Squares	Mean Squares	F_2	p
Between passages	11	9.20			
Within passages	35*	18.81			
T = S / NT = S	1	3.30	3.30	6.80	0.0233
Error (a)	11	5.33	0.49		
Assignment (S/O)	1	0.31	0.31	0.48	0.5092
Error (b)	11	7.21	0.66		
T / NT = S x Assignment	1	0.45	0.45	2.26	ns
Error (ab)	10*	2.21	0.20		
Total		28.01			

*Degrees of freedom adjusted to take account of rate calculated using Winer's formula.

Significant main effect of subject of sentence (T = S faster than NT = S).

Table A 2.12 Mean verification rates for each passage by response - Experiment 1, ambiguous passages

Passage		True	False
1	MARY	2.94	2.92
2	JAMES	3.22	2.72
3	JANE	3.23	2.97
4	SARAH	3.49	2.99
5	SHAUN	3.30	3.24
6	MR BENTLEY	2.92	2.57
7	HERBIE	4.93	4.51
8	DIANE	3.77	2.63
9	MR ROBERTS	3.09	3.08
10	SIMON	4.82	4.15
11	FIONA	4.17	3.57
12	RORY	4.22	3.94
Overall mean		3.68	3.27

Table A 2.13 Summary tables for the analyses of variance of verification rates by response - Experiment 1, ambiguous passages

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	110	266.09			
Within readers	111	149.67			
True / False	1	2.90	2.90	2.17	0.14
Error	110	146.78	1.33		
Total		415.76			

No significant difference between 'true' and 'false' verification rates.

F_2 Analysis by passages

Source	df	Sum of Squares	Mean Squares	F_2	p
Between passages	11	9.29			
Within passages	12	1.53			
True / False	1	0.96	0.96	18.78	0.0015
Error	11	0.56	0.05		
Total		10.81			

Significant main effect of response ('true' faster than 'false').

Table A 2.14 Mean verification rates for each passage by condition, assignment and response - Experiment 1, ambiguous passages

	Topic = Subject				Nontopic = Subject			
Assignment to:	Subject		Object		Subject		Object	
	True	False	True	False	True	False	True	False
Passage								
1 MARY	3.31	2.51	2.74	4.62	3.18	2.24	2.61	4.25
2 JAMES	3.15	2.53	3.43	4.69	2.50	2.62	4.14	2.74
3 JANE	3.52	3.37	2.86	3.17	2.86	2.91	3.09	2.41
4 SARAH	3.17	2.85	2.93	2.25	4.10	3.15	1.69	2.56
5 SHAUN	3.46	3.31	2.47	1.82	3.45	3.24	5.38	4.73
6 MR BENT.	2.73	2.52	2.29	2.26	3.48	3.05	2.81	1.89
7 HERBIE	5.58	4.86	4.65*	7.14	3.68	4.31	4.03	3.58
8 DIANE	4.27	2.73	1.73	2.73	3.33	2.93	2.90	1.64
9 MR ROB.	3.46	2.68	2.86*	2.72*	2.65	3.72	2.97	2.21
10 SIMON	5.57	4.99	1.75	2.43	4.52	3.84	4.02	3.04
11 FIONA	1.98	4.75	5.10	4.07	4.10	2.85	5.92	2.63
12 RORY	4.63	3.62	1.86	2.47	4.49	4.70	1.97	3.12
Overall means	3.74	3.39	2.89	3.36	3.53	3.30	3.46	2.90

MR BENT. = MR BENTLEY

MR ROB. = MR ROBERTS

*Calculated using Winer's formula.

Table A 2.15 Summary tables for the analyses of variance of verification rates by condition, assignment and response - Experiment 1, ambiguous passages

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	11	14.28			
Within readers	81*	89.77			
T = S / NT = S	1	0.07	0.07	0.09	0.770
Error (a)	11	8.21	0.75		
Assignment (S/O)	1	2.65	2.65	4.04	0.067
Error (b)	11	7.21	0.66		
True / False	1	0.42	0.42	0.57	0.529
Error (c)	11	8.07	0.73		
T / NT = S x Assignment	1	0.24	0.24	0.23	0.647
Error (ab)	11	11.67	1.06		
T / NT = S x True / False	1	1.67	1.67	1.19	0.299
Error (ac)	11	15.48	1.41		
Assignment x True / False	1	0.58	0.58	0.36	0.565
Error (bc)	11	17.48	1.59		
T/NT=S x Asst x T/F	1	2.45	2.45	1.99	ns
Error (abc)	8*	13.57	1.23		
Total		104.05			

Marginal effect of assignment (assignment to subject faster).

* Degrees of freedom adjusted to take account of rates calculated by Winer's formula.

Table A 2.15 continued

F_2 Analysis by passages

Source	df	Sum of Squares	Mean Squares	F_2	p
Between passages	11	30.92			
Within passages	81*	75.39			
T = S / NT = S	1	0.06	0.06	0.06	0.810
Error (a)	11	11.17	1.02		
Assignment (S/O)	1	2.69	2.69	1.25	0.288
Error (b)	11	23.76	2.16		
True / False	1	0.65	0.65	2.28	0.158
Error (c)	11	3.15	0.29		
T / NT = S x Assignment	1	0.25	0.25	0.32	ns
Error (ab)	10*	8.77	0.80		
T / NT = S x True / False	1	1.28	1.28	2.39	0.148
Error (ac)	11	5.90	0.54		
Assignment x True / False	1	0.36	0.36	0.40	0.545
Error (bc)	11	9.81	0.89		
T/NT=S x Asst x T/F	1	1.97	1.97	3.90	<.1
Error (abc)	9*	5.56	0.51		
Total		106.31			

Marginal interaction between subject of sentence, assignment and response.

*Degrees of freedom adjusted to take account of rates calculated by Winer's formula.

Table A 2.16 Mean reading rates (words per second) for each passage by condition - Experiment 1, unambiguous passages

Passage		Pronoun referred to Topic Subject	Topic Object	Nontopic Subject	Nontopic Object
1	MARY	3.69	3.49	4.11	3.23
2	JAMES	4.31	3.96	4.38	3.56
3	CARL	4.33	3.83	3.09	3.50
4	SARAH	5.65	3.93	4.83	4.81
5	CLARE	4.74	4.75	3.83	4.57
6	MR BENTLEY	4.16	4.64	3.75	4.19
7	HERB	4.35	3.48	3.24	3.42
8	COLIN	4.82	4.83	4.86	4.59
9	MR ROBERTS	4.34	4.05	4.24	3.51
10	PENNY	4.23	3.43	4.66	3.00
11	FIONA	3.39	4.46	3.65	4.43
12	RORY	4.32	4.83	4.08	3.52
Overall mean		4.36	4.14	4.06	3.86

Table A 2.17 Summary tables for the analyses of variance of reading rates by condition - Experiment 1, unambiguous passages

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	119	534.39			
Within readers	360	376.75			
Pronoun = T/NT	1	10.23	10.23	12.80	0.0008
Error (a)	119	95.16	0.80		
Pronoun = S/O	1	4.98	4.98	4.23	0.0394
Error (b)	119	140.11	1.18		
Pron = T/NT x S/O	1	0.04	0.04	0.04	0.8400
Error (ab)	119	126.23	1.06		
Total		911.14			

Significant main effects of pronoun referring to the topic or nontopic (Pronoun = T faster) and pronoun referring to the subject or object (Pronoun = S faster).

F_2 Analysis by passages

Source	df	Sum of Squares	Mean Squares	F_2	p
Between passages	11	7.27			
Within passages	36	8.78			
Pronoun = T/NT	1	1.01	1.01	9.31	0.011
Error (a)	11	1.19	0.11		
Pronoun = S/O	1	0.53	0.53	1.46	0.251
Error (b)	11	3.98	0.36		
Pron = T/NT x S/O	1	0.001	0.001	0.008	0.930
Error (ab)	11	2.07	0.19		
Total		16.05			

Significant main effect of pronoun referring to the topic or nontopic (Pronoun = T faster).

Table A 2.18 Mean reading rates (words per second) for each passage by accuracy of response - Experiment 1, unambiguous passages

Passage		Question answered Correctly	Incorrectly
1	MARY	3.72	3.26
2	JAMES	4.08	3.82
3	CARL	3.68	3.75
4	SARAH	4.82	4.71
5	CLARE	4.45	4.71
6	MR BENTLEY	4.11	4.48
7	HERB	3.64	3.24
8	COLIN	4.78	4.69
9	MR ROBERTS	3.97	5.79
10	PENNY	3.89	1.58
11	FIONA	3.98	4.00
12	RORY	4.18	4.33
Overall mean		4.11	4.03

Table A 2.19 Summary tables for the analyses of variance of reading rates by accuracy of response - Experiment 1, unambiguous passages

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	54	146.03			
Within readers	55	39.18			
Accuracy of response	1	0.64	0.64	0.90	0.65
Error	54	38.54	0.71		
Total		185.21			

No significant effect.

F_2 Analysis by passages

Source	df	Sum of Squares	Mean Squares	F_2	p
Between passages	11	9.18			
Within passages	12	4.67			
Accuracy of response	1	0.04	0.04	0.09	0.77
Error	11	4.63	0.42		
Total		13.85			

No significant effect.

Only those readers who produced both correct and incorrect reading rates were included in the F_1 analysis (55 out of 120).

Table A 2.20 Mean verification rates for each passage by response - Experiment 1, unambiguous passages

Passage		Response TRUE	FALSE
1	MARY	3.79	3.21
2	JAMES	4.81	4.66
3	CARL	5.04	4.87
4	CLARE	3.40	2.95
5	SHAUN	4.89	3.69
6	MR BENTLEY	2.76	2.84
7	HERB	4.18	4.36
8	COLIN	4.20	3.07
9	MR ROBERTS	3.29	3.56
10	PENNY	4.84	5.06
11	FIONA	4.46	4.09
12	RORY	5.72	4.77
Overall mean		4.28	3.93

Table A 2.21 Summary tables for the analyses of variance of verification rates by response - Experiment 1, unambiguous passages

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	118	188.52			
Within readers	119	77.10			
True / False	1	7.34	7.34	12.4	0.0009
Error	118	69.77	0.59		
Total		265.62			

Significant main effect of response ('true' faster than 'false').

F_2 Analysis by passages

Source	df	Sum of Squares	Mean Squares	F_2	p
Between passages	11	13.68			
Within passages	12	2.25			
True / False	1	0.75	0.75	5.52	0.0369
Error	11	1.50	0.14		
Total		15.93			

Significant main effect of response ('true' faster than 'false').

Table A 2.22 Mean verification rates for each passage by condition and response - Experiment 1, unambiguous passages

Passage		Pronoun referred to: Topic Subject T	Topic Subject F	Topic Object T	Topic Object F	Nontopic Subject T	Nontopic Subject F	Nontopic Object T	Nontopic Object F
1	MARY	3.68	3.57	3.85	2.99	3.63	3.53	3.98	2.39
2	JAMES	5.68	5.06	4.78	4.38	4.71	5.33	3.78	3.70
3	CARL	5.69	5.37	5.78	4.33	4.77	4.90	3.94	5.00
4	SARAH	4.21	3.31	3.32	2.29	2.81	2.90	3.27	3.21
5	CLARE	5.08	4.02	5.11	3.23	4.55	3.44	4.83	3.96
6	MR BENT.	3.04	2.96	2.86	2.56	2.64	2.68	2.62	3.15
7	HERB	4.83	4.52	3.61	4.43	3.67	3.74	4.61	4.81
8	COLIN	4.61	2.90	3.39	3.17	4.83	3.38	3.91	2.89
9	MR ROB.	3.30	4.11	3.15	2.81	3.67	4.16	3.06	3.25
10	PENNY	5.11	4.99	5.70	5.86	5.39	5.14	3.23	4.26
11	FIONA	4.53	3.56	5.49	4.83	5.17	4.78	2.96	3.27
12	RORY	4.87	3.67	5.35	4.76	6.71	5.56	5.92	5.18
Overall means		4.55	4.00	4.37	3.80	4.38	4.13	3.84	3.76
Overall means across readers:		4.57	4.00	4.40	3.89	4.39	4.16	3.88	3.82

The means for readers were based on unequal sample sizes.

MR BENT. = MR BENTLEY
MR ROB. = MR ROBERTS

T = 'true' response
F = 'false' response

Table A 2.23 F_2 summary table for the analysis of variance of verification rates by condition and response - Experiment 1, unambiguous passages

Source	df	Sum of Squares	Mean Squares	F_2	p
Between passages	11	55.02			
Within passages	84	38.57			
Pronoun = T/NT	1	0.58	0.58	0.98	0.655
Error (a)	11	6.46	0.59		
Pronoun = S/O	1	2.52	2.52	9.93	0.009
Error (b)	11	2.79	0.25		
True / False	1	3.15	3.15	5.69	0.035
Error (c)	11	6.09	0.55		
Pron = T/NT x S/O	1	0.41	0.41	0.43	0.529
Error (ab)	11	10.37	0.94		
Pron = T/NT x True/False	1	0.90	0.90	5.84	0.033
Error (ac)	11	1.69	0.15		
Pron = S/O x True/False	1	0.03	0.03	0.17	0.687
Error (bc)	11	2.17	0.20		
Pron = T/NT x S/O x T/F	1	0.05	0.05	0.38	0.556
Error (abc)	11	1.37	0.12		
Total		93.59			

Significant main effects of pronoun referring to the subject or object (Pronoun = S faster) and response ('true' faster) and significant interaction between pronoun referring to the topic or nontopic and response.

Table A 2.24 Assignments made in check on materials used in Experiment 1

Passage		Number of assignments to SUBJECT	OBJECT	NEITHER (ambiguous)
1	MARY	2		3
2	JAMES	2	2	1
3	JANE	5		
4	SARAH	3	1	1
5	SHAUN	5		
6	MR BENTLEY	4		1
7	HERBIE	5		
8	DIANE	4		1
9	MR ROBERTS	4		1
10	SIMON	5		
11	FIONA *		5	
12	RORY	2		3
Total		41	8	11

* The sentence fragment presented was 'Fiona waved at Anna and she smiled ..'. The strong preference for object assignments is probably due to the reciprocal nature of the verbs (the action of waving usually elicits some response and smiling is an appropriate response).

Table A 2.25 Mean reading rates (words per second) for each passage by condition and consistency of subject assignment in check on materials - Experiment 1, unambiguous passages

Consistent subject assignment passages

Passage	Pronoun referred to Topic Subject	Topic Object	Nontopic Subject	Nontopic Object
3 CARL	4.33	3.83	3.09	3.50
5 CLARE	4.74	4.75	3.83	4.57
7 HERB	4.35	3.48	3.24	3.42
10 PENNY	4.23	3.43	4.66	3.00
Overall mean	4.41	3.87	3.71	3.62

Others

Passage	Pronoun referred to Topic Subject	Topic Object	Nontopic Subject	Nontopic Object
1 MARY	3.69	3.49	4.11	3.23
2 JAMES	4.31	3.96	4.38	3.56
4 SARAH	5.65	3.93	4.83	4.81
6 MR BENTLEY	4.16	4.64	3.75	4.19
8 COLIN	4.82	4.83	4.86	4.59
9 MR ROBERTS	4.34	4.05	4.24	3.51
11 FIONA	3.39	4.46	3.65	4.43
12 RORY	4.32	4.83	4.08	3.52
Overall mean	4.34	4.27	4.24	3.98

Table A 3.1 Frequency of different syntactic categories associated with the topic, nontopic, both the topic and the nontopic and other characters in the first four sentences of each passage used in Experiments 2 and 3

Passage	CHR	Syntactic category S	A	AD	AJ	TR	IN	PS	O
	T	9	5	7	1	5	3	1	1
1 MARY	NT	9	5	7	1	5	3	1	1
	B					2			
	O	2	1	1	1	1	1		
	T	10	5	7	1	7	3	1	
2 JAMES	NT	10	5	7	1	7	3	1	
	B								
	O				5				
	T	6	2	5	2	3	3	2	
3 JANE/CARL	NT	6	2	5	2	3	3	2	
	B	3	1	3		2	1		
	O	1		1	3		1		
	T	10	5	8	2	7	3	2	
4 SARAH	NT	10	5	8	2	7	3	2	
	B								
	O				7				
	T	12	5	5	1	7	4	1	
5 SHAUN/CLARE	NT	12	5	5	1	7	4	1	
	B					2			
	O	7		2	1	6	1		
	T	12	9	6		8	3	3	
6 MR BENTLEY	NT	12	9	6		8	3	3	
	B					2			
	O	3			4	3		2	
	T	10	7	7		5	5	2	1
7 HERBIE/HERB	NT	10	7	7		5	5	2	1
	B								
	O	2	2	3	2	3	3		
	T	10	4	4	1	6	4	2	
8 DIANE/COLIN	NT	10	4	4	1	6	4	2	
	B					1			
	O	5	1	1	5	5			
	T	9	5	8	1	5	4	3	
9 MR ROBERTS	NT	9	5	8	1	5	4	3	
	B	1	1	1			1		
	O				3				

Table A 3.1 Continued

Passage	CHR	Syntactic category S	A	AD	AJ	TR	IN	PS	O
	T	13	6	6	1	11	3	1	
10 SIMON/PENNY	NT	13	6	6	1	11	3	1	
	B								
	O	1			7		1		
	T	8	4	5	1	6	2	2	
11 FIONA	NT	8	4	5	1	6	2	2	
	B					1			
	O				2				
	T	6	2	6	3	3	3	1	
12 RORY	NT	6	2	6	3	3	3	1	
	B								
	O	2	1	2	2	1	1		

CHR = Character:
T = topic
NT = nontopic
B = both the topic and the nontopic
O = other character

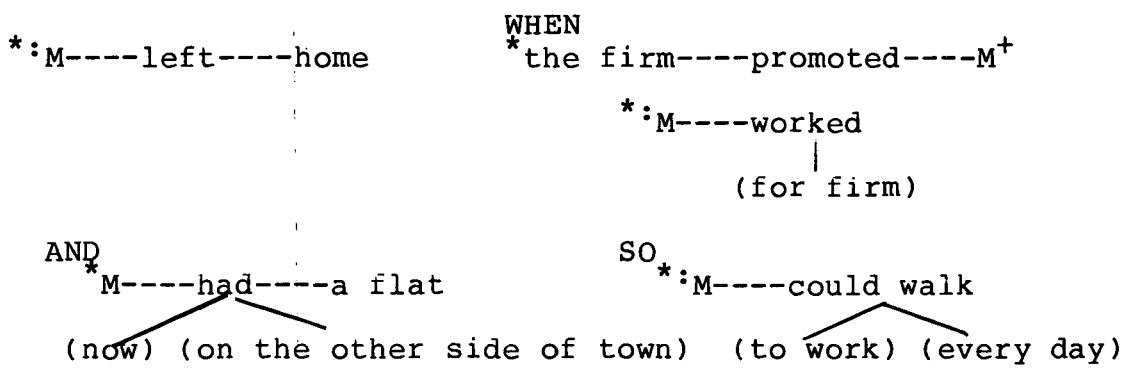
Syntactic categories:

S = subject
A = agent
AD = adverb
AJ = adjective
TR = transitive verb
IN = intransitive verb
PS = possessive
O = object

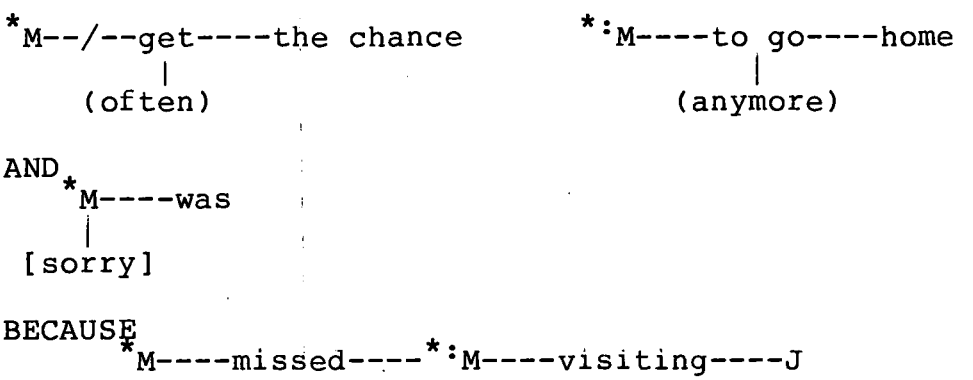
Table A 3.2 Model of first four sentences of one of the passages used in Experiment 2

MARY

Sentence 1



Sentence 2



Sentence 3

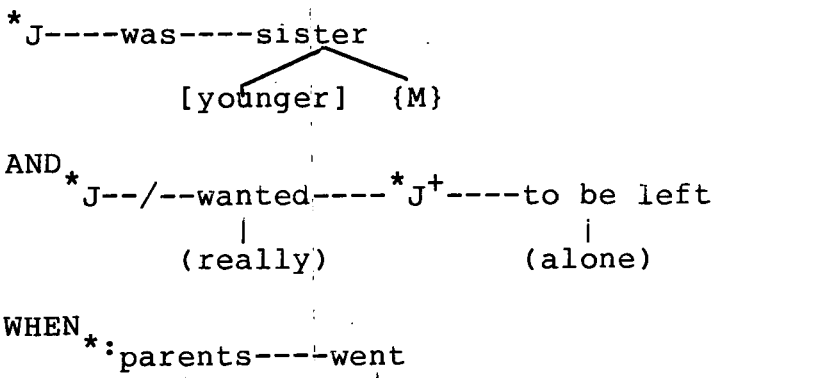
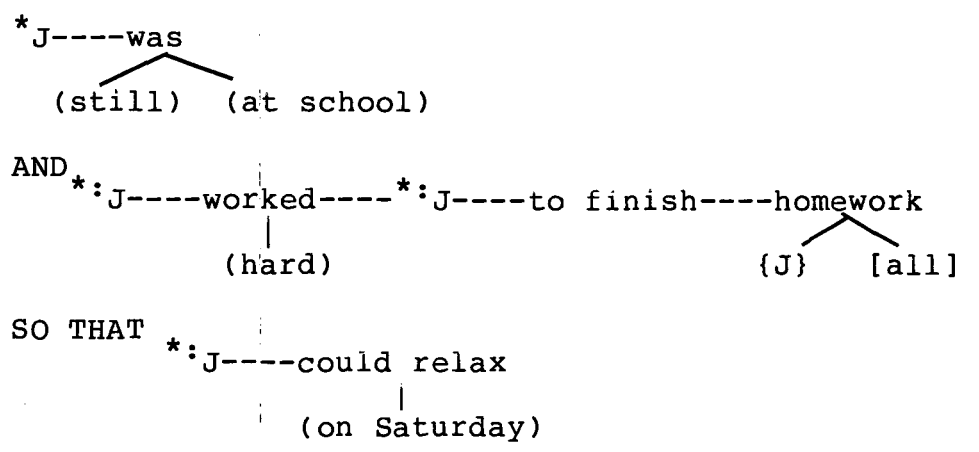


Table A 3.2 continued

Sentence 4



KEY

M	Mary
J	Jenny
*	Subject of verb
:	Agent of verb
----verb----	Transitive verb
----verb	Intransitive verb
--/--verb	Negates verb
( )	Adverb (including prepositional phrases) - two or more adverbs occurring together counted as one
[ ]	Adjective
AND, WHEN	Conjunction
{ }	Possessive
+	Object of verb (only counted when topic or nontopic is object of verb whose subject was not topic or nontopic (and therefore not counted as 'both')

Table A 3.3 Experimental passages used in Experiment 2

The passages are presented in Condition A with the sentences presented in Order X (T, NT, T, NT) and the target sentence with the topic as subject (T = S). The target sentence is underlined. The questions are presented in Order 1 and the critical question with the topic as subject (type a).

1 MARY

Mary had left home when the firm she worked for promoted her and she now had a flat on the other side of town so she could walk to work every day. Jenny was her younger sister and didn't really want to be left alone when their parents went on holiday so she went to see Mary for the weekend. Mary didn't often get the chance to go home anymore and she was sorry because she missed visiting Jenny. Jenny was still at school and she worked hard to finish all her homework so that she could relax on Saturday. Mary asked Jenny to phone the theatre to see what was on when she joined her for breakfast. There were only matinee tickets left so they decided not to go.

Questions	Correct answer
1 Mary still lived at home.	False
2 Jenny was a schoolgirl.	True
3 Mary joined Jenny for breakfast.	

2 JAMES

James had only been at school for two years but he was already looking forward to being able to leave. Andrew was in the same class and he had always liked going to school because he was big and could easily bully the other children in his class. Young James tried to please his teachers but he never seemed to get very good marks and always seemed to be getting into trouble. Andrew was quite intelligent so he usually managed to get good marks quite easily even though he spent a lot of time making trouble. James started fighting Andrew and he kicked him. The teacher sent them both inside to see the headmistress.

Questions	Correct answer
1 James had been at school for seven years.	False
2 Andrew usually got good marks.	True
3 James kicked Andrew.	

3 JANE

Jane went to a big comprehensive school where she was well known because she was very good at all kinds of sport and she had a lot of friends there. Monica and Jane had known each other since they went to infant school together and

they had been friends ever since even though Monica had now moved to a different area where she was very popular in her school. All of Jane's family were interested in sport so she had encouragement from home especially when she played tennis. Monica also enjoyed playing sport and was well known in her area as Jane's biggest rival. Jane often played against Monica and she usually beat her. But it didn't make any difference to their friendship.

Questions	Correct answer
1 Jane hated sport.	False
2 Monica was popular at school.	True
3 Jane usually beat Monica.	

4 SARAH

Sarah had looked forward to leaving home and going to University for a long time but unfortunately she wasn't very happy there. Her close friend Trish still lived at home where she had started a new job at the local hospital and although she sometimes envied her friends she was finding her job very rewarding. Sarah was quite shy and always found it difficult to make new friends and although superficially she seemed cheerful she often wondered whether she had made the right decision about her future. Trish didn't want an office job or to work in England and eventually intended to go to work abroad but she wanted some experience at home first. Sarah went to see Trish and she told her what had been happening to her. They had a lot to talk about.

Questions	Correct answer
1 Sarah was finding it hard to settle down.	True
2 Trish worked abroad.	False
3 Sarah told Trish what had been happening to her.	

5 SHAUN

It was beginning to get dark and Shaun was starting to worry a bit because he knew they still had quite a long way to go before they got back to his minivan but he was the only one who seemed concerned. Ben hadn't wanted to come on this walking trip but he'd let his friends persuade him because he was easy going and hadn't planned anything else for that day and he'd decided he needed the exercise. Shaun was quite used to walking in these hills and he knew how easy it was to lose the path once it got dark. Ben wasn't aware of how late it was getting because he was engrossed in a conversation telling Shaun about meditation but he suddenly stopped when he became aware that the path narrowed over a steep drop. Shaun led Ben along the path and he called to him to be careful. They got safely across and the others followed.

Questions	Correct answer
1 Shaun was worried.	True
2 Ben had organised the walking trip.	False
3 Shaun called to Ben to be careful.	

6 MR BENTLEY

Mr Bentley was travelling to see his mother in Okehampton and was driving his new car very carefully because he was worried about driving it on the narrow Devon lanes. A man had been following him for a long time and was getting very impatient because he was trying to hurry to get to his friend's house for dinner. Mr Bentley was driving slowly so he managed to stop the car in time when he found some cows blocking the road but he thought they were dangerous so he got out of this car and stopped the man in the car behind. The car driver had left the office late and had underestimated how long it would take him to drive to his friend's house so he thought he had better phone his friend to warn him that he would arrive late. Mr Bentley talked to the car driver and he told him that they wouldn't be long. The cows only had to go into the next field.

Questions	Correct answer
1 Mr Bentley was a careless driver.	False
2 The car driver was in a hurry.	True
3 Mr Bentley told the car driver that they wouldn't have to wait long.	

7 HERBIE

Herbie was quite certain his raid on the Drug Store would succeed but unfortunately the owner was there and saw Herbie as he arrived and although Herbie fired at him slightly wounding him he set off the alarm. Jack had joined the Police Force six months ago and tonight he didn't feel well and was looking forward to going off duty as he didn't get on with the driver of his car. Herbie tried to get away quickly by forcing open the window leading to the side street where he had parked a minute ago but he hurt his ankle slightly as he jumped down. Jack jumped when he heard the alarm from the Drug Store and he leaped out of the car and ran over to the Store shouting to his driver to cover him. Herbie saw the policeman and he shot at him. But this time nobody was hurt.

Questions	Correct answer
1 Herbie was robbing a bank.	False
2 Jack had been in the Police Force for six months.	True
3 Herbie shot at the policeman.	

8 DIANE

Diane was very keen on outdoor sports and would have loved to go sailing but she couldn't afford a boat or lessons while she was still at school. Nicola loved sailing and was very pleased that her new house was close to several reservoirs and she hoped her father would have more time to take her sailing now that he had a different job. Diane was pleased to see that her new neighbours had a sailing dinghy and she soon called round to see Nicola who was about her own age. Nicola was a bit apprehensive about going to a new school but overall she was pleased to have moved house. Diane liked Nicola straight away and she asked her if she enjoyed sailing. They arranged to go sailing that weekend.

Questions	Correct answer
1 Diane liked outdoor sports.	True
2 Nicola wished she hadn't moved house.	False
3 Diane asked Nicola if she enjoyed sailing.	

9 MR ROBERTS

Mr Roberts didn't usually look forward to going away with his family but this year he was unhappy and having problems at work so he welcomed the break. Jonathan was really pleased because he was going to the seaside for the first time in his life and because he didn't have to go back to school for another six weeks. Mr Roberts spent most of his time on his own reading or walking when they went on holiday but this year he spent much more time with his children Jonathan and Caroline. Jonathan definitely wanted to learn to swim and to use his new surfboard which he'd just got for his birthday. Mr Roberts taught Jonathan how to make a kite and he showed him how to make it fly properly. By the end of the holiday Mr Roberts felt much happier.

Questions	Correct answer
1 Mr Roberts was having problems at work.	True
2 Jonathan didn't want to go to the seaside.	False
3 Mr Roberts showed Jonathan how to make the kite fly properly.	

10 SIMON

Simon had just left school and started working as a trainee surveyor but he wasn't enjoying it very much because he found the work difficult and found it hard to make his own decisions. Geoff hadn't been working in the office for very long and was still cautious although he was finding the work a bit easier now and he made an effort to get to know the others in his office. Simon was determined not to appear unhappy and so he always made a great effort to tackle new jobs conscientiously and to seem cheerful and

confident while he was at work. Geoff appeared to be an extrovert and often played squash or went drinking with the others in the office but this was because he felt shy and insecure not because he felt confident. Simon knew Geoff and he envied him. But he had no reason to.

Questions	Correct answer
1 Simon had just started his first job.	True
2 Geoff was very confident.	False
3 Simon envied Geoff.	

11 FIONA

Poor Fiona was fed up with feeling lonely and depressed at home so she thought she would go for her favourite walk down by the river. Anna was feeling miserable because she had just broken off her engagement and was wondering whether she had done the right thing. Fiona was trying to decide who she could visit for a chat when she saw her friend Anna in the distance. Anna couldn't stand being with her over-sympathetic parents any longer so she'd come out for a walk to think things over. Fiona waved at Anna and she smiled at her. They were pleased to see each other and walked on together.

Questions	Correct answer
1 Fiona was feeling miserable on her own.	True
2 Anna was married.	False
3 Fiona smiled at Anna.	

12 RORY

Rory the Alsatian was very fierce - in fact everyone said he was the most dangerous dog in the neighbourhood. Alfie the poodle was usually very friendly and loved playing with the children in the park near his house. Rory belonged to a couple who were out at work all day and he often roamed the streets on his own where he caused trouble by barking fiercely at everyone. Although he was usually docile Alfie hated some of the dogs in the area and he sometimes picked fights with them. Rory met Alfie on the street one day and he bit him. Then he ran away as quickly as he could.

Questions	Correct answer
1 Rory was a gentle dog.	False
2 Alfie liked playing with children.	True
3 Rory bit Alfie.	

Table A 3.4 Number of assignments to the subject and object for each passage by condition - Experiment 2

Passage	Assignment to:	Order X T = S		Order X NT = S		Order Y T = S		Order Y NT = S	
		S	O	S	O	S	O	S	O
1	MARY	3	3	3	3	2	4	4	2
2	JAMES	6	0	5	1	4	2	3	3
3	JANE	5	1	6	0	6	0	5	1
4	SARAH	4	1	4	2	6	0	4	2
5	SHAUN	6	0	3	3	5	1	6	0
6	MR BENTLEY	4	2	1	5	3	3	4	1
7	HERBIE	6	0	2	4	6	0	6	0
8	DIANE	5	1	5	1	6	0	5	1
9	MR ROBERTS	5	1	6	0	5	0	5	0
10	SIMON	6	0	6	0	5	1	5	1
11	FIONA	1	5	6	0	5	1	3	3
12	RORY	4	2	6	0	6	0	6	0
Total		55	16	53	19	59	12	56	14
Overall means		4.6	1.3	4.4	1.6	4.9	1.0	4.7	1.2

Assignment to S = subject
Assignment to O = object

Table A 3.5 Summary tables for the analyses of variance of assignments by condition - Experiment 2

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	23	0.42			
Within readers	168	127.50			
Order X / Y	1	0.02	0.02	1.00	0.671
Error (a)	23	0.48	0.02		
T = S / NT = S	1	0.00	0.00	0.00	
Error (b)	23	0.50	0.02		
Assignment (S/O)	1	136.69	136.69	158.68	0.000
Error (c)	23	19.81	0.86		
Order x T / NT = S	1	0.02	0.02	1.00	0.329
Error (ab)	23	0.48	0.02		
Order x Assignment	1	1.33	1.33	2.52	0.123
Error (ac)	23	12.17	0.53		
T / NT = S x Assignment	1	0.52	0.52	0.50	0.507
Error (bc)	23	23.98	1.04		
Order x T/NT=S x Asst	1	0.00	0.00	0.00	0.996
Error (abc)	23	21.50	0.93		
Total		217.92			

Significant main effect of assignment (more to the subject).

Table A 3.5 continued

F_2 Analysis by passages

Source	df	Sum of Squares	Mean Squares	F_2	p
Between passages	11	0.58			
Within passages	84	461.25			
Order X / Y	1	0.04	0.04	0.65	0.557
Error (a)	11	0.71	0.06		
T = S / NT = S	1	0.00	0.00	0.00	
Error (b)	11	0.25	0.02		
Assignment (S/O)	1	273.38	273.38	40.16	0.000
Error (c)	11	74.88	6.81		
Order x T / NT = S	1	0.04	0.04	2.20	0.164
Error (ab)	11	0.21	0.02		
Order x Assignment	1	2.67	2.67	1.19	0.298
Error (ac)	11	24.58	2.23		
T / NT = S x Assignment	1	1.04	1.04	0.46	0.516
Error (bc)	11	24.71	2.25		
Order x T/NT=S x Asst	1	0.00	0.00	0.00	0.996
Error (abc)	11	58.75	5.34		
Total		461.83			

Significant main effect of assignment (more to the subject).

Table A 3.6 Number of words in each target sentence of each passage in Experiments 2 to 5

Passage		Number of words in target sentence
1	MARY	18
2	JAMES	8
3	JANE/CARL	10
4	SARAH	15
5	SHAUN/CLARE	14
6	MR BENTLEY	16
7	HERBIE/HERB	9
8	DIANE/COLIN	13
9	MR ROBERTS	19
10	SIMON/PENNY	7
11	FIONA	9
12	RORY	12
Range		7 - 19
Mean		12.5

Table A 3.7 Mean reading rates (words per second) for each passage by condition - Experiment 2

Passage	Order X T = S	Order X NT = S	Order Y T = S	Order Y NT = S
1 MARY	2.17	3.58	3.19	3.60
2 JAMES	2.19	2.89	2.82	2.08
3 JANE	3.17	3.57	3.73	3.57
4 SARAH	4.01	4.05	5.95	5.67
5 SHAUN	4.37	4.76	3.78	3.78
6 MR BENTLEY	5.09	2.80	4.96	2.98
7 HERBIE	3.74	3.93	4.54	4.13
8 DIANE	5.45	3.21	4.60	5.08
9 MR ROBERTS	5.61	4.27	4.86	5.93
10 SIMON	2.97	2.25	1.84	1.73
11 FIONA	5.15	3.51	3.15	2.45
12 RORY	4.56	4.28	4.73	2.87
Overall mean	4.04	3.59	4.01	3.66

Order X	Order Y
Sentence about Topic	Sentence about Topic
Sentence about Nontopic	Sentence about Nontopic
Sentence about Topic	Sentence about Nontopic
Sentence about Nontopic	Sentence about Topic

T = S Topic = subject of target sentence
NT = S Nontopic = subject of target sentence

Table A 3.8 Summary tables for the analyses of variance of reading rates by condition - Experiment 2

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	23	171.73			
Within readers	72	82.49			
Order X / Y	1	0.07	0.07	0.004	0.952
Error (a)	23	39.75	1.73		
T = S / NT = S	1	3.86	3.86	6.78	0.015
Error (b)	23	13.07	0.57		
Order x T / NT = S	1	0.05	0.05	0.04	0.832
Error (ab)	23	25.75	1.12		
Total		254.22			

Significant main effect of subject of sentence (T = S faster)

F_2 Analysis by passages

Source	df	Sum of Squares	Mean Squares	F_2	p
Between passages	11	35.71			
Within passages	36	22.47			
Order X / Y	1	0.004	0.004	0.005	0.941
Error (a)	11	8.26	0.75		
T = S / NT = S	1	1.94	1.94	3.055	0.106
Error (b)	11	7.00	0.64		
Order x T / NT = S	1	0.03	0.03	0.053	0.816
Error (ab)	11	5.24	0.48		
Total		58.18			

No significant effects

Table A 3.9 Mean reading rates (words per second) for each passage by condition and assignment - Experiment 2

Means calculated across order

Passage	Assignment to:	Topic = Subject Subject	Topic = Subject Object	Nontopic = Subject Subject	Nontopic = Subject Object
1	MARY	2.68	2.69	2.47	5.16
2	JAMES	2.58	2.17	2.72	2.03
3	JANE	3.55	2.41	3.38	5.64
4	SARAH	5.38	3.29	4.44	5.71
5	SHAUN	4.28	1.86	3.69	6.02
6	MR BENTLEY	5.19	4.80	2.35	3.18
7	HERBIE	4.14	4.33*	3.85	4.38
8	DIANE	4.87	6.65	4.53	2.26
9	MR ROBERTS	5.04	8.20	4.82	5.99*
10	SIMON	2.51	1.21	1.88	3.16
11	FIONA	3.54	4.77	3.06	2.75
12	RORY	4.91	3.33	3.58	3.91*
Overall means		4.06	3.81	3.40	4.18

* Calculated using Winer's formula

Table A 3.10 Summary tables for the analyses of variance of reading rates by condition for subject assignments only - Experiment 2

Across order

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	23	79.90			
Within readers	24	12.62			
T = S / NT = S	1	3.43	3.43	8.60	0.007
Error	23	9.18	0.40		
Total		92.51			

Significant main effect of subject of sentence (T = S faster).

F_2 Analysis by passages

Source	df	Sum of Squares	Mean Squares	F_2	p
Between passages	11	18.57			
Within passages	12	6.01			
T = S / NT = S	1	2.60	2.60	8.37	0.014
Error	11	3.42	0.31		
Total		24.59			

Significant main effect of subject of sentence (T = S faster).

Table A 3.11 Mean verification rates for each passage by condition and response - Experiment 2

Across order

Passage	Response:	Topic = Subject TRUE	Topic = Subject FALSE	Nontopic = Subject TRUE	Nontopic = Subject FALSE
1	MARY	3.18	1.96	2.89	2.47
2	JAMES	3.77	3.45	3.19	4.71
3	JANE	4.86	4.29	5.43	4.07
4	SARAH	3.97	2.74	3.42	2.12
5	SHAUN	4.90	3.04	3.02	3.22
6	MR BENTLEY	3.84	2.87	3.16	1.86
7	HERBIE	4.86	4.19	4.70	3.46
8	DIANE	4.72	3.26	3.15	3.92
9	MR ROBERTS	4.30	3.62	3.18	4.03
10	SIMON	5.60	2.60	4.17	2.67
11	FIONA	3.53	3.79	3.30	2.53
12	RORY	5.38	4.79	6.14	4.80
Overall means		4.41	3.38	3.81	3.32

Table A 3.12 Summary tables for the analyses of variance of verification rates by condition and response - Experiment 2

Across order

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	23	123.11			
Within readers	71*	62.68			
T = S / NT = S	1	0.41	0.41	0.66	0.569
Error (a)	23	14.20	0.62		
True / False	1	8.73	8.73	10.13	0.004
Error (b)	23	19.81	0.86		
T / NT = S x True / False	1	1.33	1.33	1.68	n.s.
Error (ab)	22*	18.20	0.79		
Total		185.80			

* Degrees of freedom adjusted to take account of the use of Winer's formula.

Significant main effect of response ('true' faster than 'false').

F_2 Analysis by passages

Source	df	Sum of Squares	Mean Squares	F_2	p
Between passages	11	24.53			
Within passages	36	21.40			
T = S / NT = S	1	1.30	1.30	6.13	0.029
Error (a)	11	2.33	0.21		
True / False	1	6.90	6.90	13.23	0.004
Error (b)	11	5.74	0.52		
T / NT = S x True / False	1	0.86	0.86	2.21	0.163
Error (ab)	11	4.27	0.39		
Total		45.93			

Significant main effects of subject of sentence (topic = subject faster) and response ('true' faster than 'false').

Table A 3.13 Order of questions used with filler passages - Experiment 3

	Filler passage number													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Question order	3	4	5	6	1	2	3	4	5	6	1	2	3	4

Question type

Question order 1 = 1, 2, 3
2 = 1, 3, 2
3 = 2, 1, 3
4 = 2, 3, 1
5 = 3, 1, 2
6 = 3, 2, 1

Question type 1 = about topic
Question type 2 = general question
Question type 3 = about topic and nontopic

Table A 3.15 continued

F_2 Analysis by passages

Source	df	Sum of Squares	Mean Squares	F_2	p
Between passages	11	60.31			
Within passages	84	29.98			
Order X / Y	1	0.03	0.03	0.11	0.75
Error (a)	11	3.14	0.29		
Pronoun = T/NT	1	0.05	0.05	0.12	0.73
Error (b)	11	4.43	0.40		
Pronoun = S/O	1	0.61	0.61	2.18	0.17
Error (c)	11	3.06	0.28		
Order x Pronoun = T/NT	1	0.28	0.28	0.49	0.50
Error (ab)	11	6.36	0.58		
Order x Pronoun = S/O	1	0.00	0.00	0.00	0.98
Error (ac)	11	4.17	0.38		
Pronoun = T/NT x S/O	1	0.79	0.79	1.84	0.20
Error (bc)	11	4.71	0.43		
Order x Pron = T/NT x S/O	1	0.17	0.17	0.86	0.62
Error (abc)	11	2.18	0.20		
Total		98.28			

No significant effects.

Table A 3.16 Mean reading rates (words per second) for each passage by accuracy of response - Experiment 3

Passage		Question answered Correctly	Incorrectly
1	MARY	3.37	4.66
2	JAMES	2.98	3.83
3	CARL	3.84	3.02
4	SARAH	3.56	4.64
5	CLARE	4.44	3.52
6	MR BENTLEY	3.09	4.01
7	HERB	2.92	3.42
8	COLIN	4.70	4.30
9	MR ROBERTS	3.97	3.74
10	PENNY	1.99	3.55
11	FIONA	5.64	4.76
12	RORY	4.34	4.23
Overall mean		3.74	3.97

Table A 3.17 Summary tables for the analyses of variance of reading rates by accuracy of response - Experiment 3

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	39	78.09			
Within readers	40	27.93			
Accuracy of response	1	3.42	3.42	5.43	0.024
Error	39	24.51	0.63		
Total		106.02			

Significant main effect of accuracy ('incorrect' sentences read faster).

F_2 Analysis by passages

Source	df	Sum of Squares	Mean Squares	F_2	p
Between passages	11	9.27			
Within passages	12	4.80			
Accuracy of response	1	0.34	0.34	0.83	0.61
Error	11	4.46	0.41		
Total		14.07			

No significant effect of accuracy of response.

Only the data from readers who produced both correct and incorrect rates were included in the analyses.

Table A 3.18 Mean correct verification rates for each passage by condition - Experiment 3

	Order X				Order Y			
Pronoun refers to:	Topic		Nontopic		Topic		Nontopic	
Passage	S	O	S	O	S	O	S	O
1 MARY	3.64	4.08	4.12	4.76	4.37	3.43	4.29	3.62
2 JAMES	4.49	3.78	4.50	3.34	3.56	6.40	5.82	3.22
3 CARL	5.05	4.57	4.66	4.28	3.73	5.95	4.24	4.11
4 SARAH	2.74	3.14	2.99	3.22	3.27	2.74	2.80	1.91
5 CLARE	3.11	3.00	3.24	4.26	3.40	3.39	3.88	4.87
6 MR BENT.	2.42	3.39	3.87	2.80	2.91	3.13	2.20	2.07
7 HERB	5.52	3.41	5.28	4.29	4.00	5.48	4.16	3.57
8 COLIN	3.91	3.30	4.20	2.37	4.36	3.44	5.36	3.13
9 MR ROB.	3.10	2.20	3.23	3.35	3.72	3.59	2.81	1.49
10 PENNY	4.21	3.69	3.22	3.53	4.85	3.21	4.02	3.95
11 FIONA	4.19	4.41	4.79	3.98	3.75	4.09	3.83	4.33
12 RORY	5.18	3.61	4.50	6.41	4.33	4.20	5.93	4.63
Overall mean	3.96	3.55	4.05	3.88	3.85	4.09	4.11	3.41

MR BENT. = MR BENTLEY
MR ROB. = MR ROBERTS

Order X - Nontopic most recently mentioned
Order Y - Topic most recently mentioned

S = Subject
O = Object

Table A 3.19 Summary tables for the analyses of variance of verification rates by condition - Experiment 3

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	47	122.08			
Order X / Y	1	0.21	0.21	0.08	0.775
Error (a)	46	121.87	2.65		
Within readers	142*	131.04			
Pronoun = T/NT	1	0.74	0.74	0.73	0.597
Pronoun = T/NT x Order	1	0.11	0.11	0.11	0.744
Error (b)	46	46.52	1.01		
Pronoun = S/O	1	2.59	2.59	3.46	0.066
Pronoun = S/O x Order	1	0.24	0.24	0.32	0.580
Error (c)	46	34.36	0.75		
Pron = T/NT x S/O	1	0.62	0.62	0.63	0.563
Pron = T/NT x S/O x Order	1	0.33	0.33	0.34	0.572
Error (bc)	44*	45.53	0.99		
Total		253.12			

* Degrees of freedom adjusted to take account of use of Winer's formula.

Marginally significant effect of pronoun referring to the subject or object (Pronoun = S faster).

Table A 3.19 continued

F_2 Analysis by passages

Source	df	Sum of Squares	Mean Squares	F_2	p
Between passages	11	41.69			
Within passages	84	45.01			
Order X / Y	1	0.00	0.00	0.00	0.97
Error (a)	11	3.99	0.36		
Pronoun = T/NT	1	0.00	0.00	0.00	0.99
Error (b)	11	5.46	0.50		
Pronoun = S/O	1	1.66	1.66	3.53	0.08
Error (c)	11	5.17	0.47		
Order x Pronoun = T/NT	1	1.06	1.06	3.10	0.10
Error (ab)	11	3.77	0.34		
Order x Pronoun = S/O	1	0.02	0.02	0.03	0.85
Error (ac)	11	6.10	0.55		
Pronoun = T/NT x S/O	1	0.71	0.71	0.98	0.65
Error (bc)	11	8.00	0.73		
Order x Pron = T/NT x S/O	1	2.10	2.10	3.33	0.09
Error (abc)	11	6.96	0.63		
Total		86.70			

Marginally significant effects of pronoun referring to the subject or object (Pron = S faster) and interaction between all three factors (order, pronoun referring to the topic or nontopic and pronoun referring to the subject or object).

Table A 3.20 Ratings of importance of target sentence for each passage by condition - materials from Experiment 2

Passage	Condition	Rating 1	2	3	4	5
	A	0	1	2	2	0
1 MARY	B	1	3	0	0	1
	C	1	1	3	0	0
	D	0	4	1	0	0
	A	0	3	1	0	1
2 JAMES	B	0	0	2	3	0
	C	0	0	1	3	1
	D	2	1	0	2	0
	A	1	1	0	1	2
3 JANE	B	0	0	2	2	1
	C	0	1	2	2	0
	D	0	0	4	1	0
	A	1	0	2	0	2
4 SARAH	B	0	2	2	1	0
	C	0	1	2	2	0
	D	0	1	1	1	2
	A	0	0	1	3	1
5 SHAUN	B	0	1	2	2	0
	C	0	0	3	2	0
	D	0	0	2	2	1
	A	1	2	1	1	0
6 MR BENTLEY	B	0	1	3	1	0
	C	0	1	1	3	0
	D	0	1	2	2	0
	A	0	0	1	1	3
7 HERBIE	B	0	1	0	3	1
	C	0	0	1	2	2
	D	1	0	1	3	0
	A	0	1	1	1	2
8 DIANE	B	0	1	1	2	1
	C	0	1	2	2	0
	D	0	0	1	3	1
	A	0	3	1	1	0
9 MR ROBERTS	B	2	1	0	2	0
	C	0	0	2	1	2
	D	0	1	2	2	0
	A	1	1	1	2	0
10 SIMON	B	0	0	0	4	1
	C	0	0	2	3	0
	D	1	2	0	1	1

Table A 3.20 continued

Passage	Condition	Rating 1	2	3	4	5
	A	2	0	1	2	0
11 FIONA	B	0	0	3	1	1
	C	0	0	1	3	1
	D	1	1	1	0	2
	A	1	0	2	2	0
12 RORY	B	1	0	2	2	0
	C	0	2	1	1	1
	D	0	1	1	3	0

Condition		
A	Order X	T = S
B	Order X	NT = S
C	Order Y	T = S
D	Order Y	NT = S

Order X Nontopic most recently mentioned
Order Y Topic most recently mentioned

Table A 3.21 Mean ratings of importance of target sentence by condition - materials from Experiment 2

	Most recently mentioned		
	TOPIC (Order X)	NONTOPIC (Order Y)	$\bar{x}$
T = S	3.57	3.20	3.39
NT = S	3.20	3.28	3.24
$\bar{x}$	3.39	3.24	

1 = unimportant 5 = very important

Table A 3.22 Mean ratings of importance of target sentence for each passage by condition - materials from Experiment 2

Across order

Passage	Topic = Subject	Nontopic = Subject
1 MARY	2.80	2.30
2 JAMES	3.40	3.00
3 JANE	3.30	3.50
4 SARAH	3.30	3.10
5 SHAUN	3.70	3.50
6 MR BENTLEY	2.90	2.80
7 HERBIE	4.30	3.40
8 DIANE	3.50	3.80
9 MR ROBERTS	3.30	2.80
10 SIMON	3.20	3.50
11 FIONA	3.30	3.40
12 RORY	3.10	3.20
Overall mean	3.34	3.19

Table A 3.23 Summary tables for the analyses of variance of ratings by condition - materials from Experiment 2

Across order

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	19	7.54			
Within readers	20	5.66			
T = S / NT = S	1	0.03	0.03	0.11	0.74
Error	19	5.63	0.30		
Total		13.20			

No significant effect.

F_2 Analysis by passages

Source	df	Sum of Squares	Mean Squares	F_2	p
Between passages	11	2.77			
Within passages	12	0.90			
T = S / NT = S	1	0.14	0.14	1.94	0.19
Error	11	0.77	0.07		
Total		3.67			

No significant effect.

Table A 3.24 Number of times the topic, the nontopic or neither was chosen as the most important person for each passage by condition - materials from Experiment 2

Passage	MIP	Order X T = S	Order X NT = S	Order Y T = S	Order Y NT = S
1 MARY	T	3	0	1	0
	NT	1	0	1	1
	N	1	4	3	4
2 JAMES	T	1	2	2	0
	NT	0	2	2	1
	N	4	1	1	3
3 JANE	T	0	1	2	0
	NT	1	0	0	0
	N	3	4	2	4
4 SARAH	T	0	1	2	2
	NT	0	1	1	1
	N	4	2	2	2
5 SHAUN	T	3	0	4	2
	NT	0	1	0	1
	N	2	4	1	2
6 MR BENTLEY	T	3	2	3	2
	NT	0	0	1	0
	N	2	2	1	3
7 HERBIE	T	4	3	3	4
	NT	1	1	2	1
	N	0	0	0	0
8 DIANE	T	0	0	0	3
	NT	2	3	0	0
	N	3	1	5	1
9 MR ROBERTS	T	3	1	5	3
	NT	1	2	0	1
	N	1	1	0	1
10 SIMON	T	1	1	0	3
	NT	0	1	2	0
	N	4	3	3	2
11 FIONA	T	1	0	1	0
	NT	1	0	2	1
	N	2	5	2	3
12 RORY	T	0	1	1	0
	NT	1	1	1	2
	N	3	2	3	3

MIP = most important person, T = topic, NT = nontopic, N = neither, S = Subject.

Table A 3.25 Frequency with which the topic or the nontopic was chosen as the most important person for each passage by condition - materials from Experiment 2

Across order

Most important person: Passage		Topic = Subject T	Topic = Subject NT	Nontopic = Subject T	Nontopic = Subject NT
1	MARY	4	2	0	1
2	JAMES	3	2	2	3
3	JANE	2	1	1	0
4	SARAH	2	1	3	2
5	SHAUN	7	0	2	2
6	MR BENTLEY	6	1	4	0
7	HERBIE	7	3	7	2
8	DIANE	0	2	3	3
9	MR ROBERTS	8	1	4	3
10	SIMON	1	2	4	1
11	FIONA	2	3	0	1
12	RORY	1	2	1	3
Overall mean		3.6	1.7	2.6	1.8

Table A 3.26 Summary tables for the analyses of variance of judgements of most important person by condition - materials from Experiment 2

Across order

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	19	16.44			
Within readers	60	103.25			
T = S / NT = S	1	1.51	1.51	2.02	0.17
Error (a)	19	14.24	0.75		
T / NT as MIP	1	13.61	13.61	5.86	0.02
Error (b)	19	44.14	2.32		
T / NT = S x MIP	1	2.11	2.11	1.45	0.24
Error (ab)	19	27.64	1.45		
Total		119.69			

Significant main effect of T / NT as most important person (topic chosen more often than nontopic).

F_2 Analysis by passages

Source	df	Sum of Squares	Mean Squares	F_2	p
Between passages	11	49.73			
Within passages	36	129.75			
T = S / NT = S	1	2.52	2.52	1.34	0.27
Error (a)	11	20.73	1.88		
T / NT as MIP	1	22.69	22.69	4.66	0.05
Error (b)	11	53.56	4.87		
T / NT = S x MIP	1	3.52	3.52	1.45	0.25
Error (ab)	11	26.73	2.43		
Total		179.48			

Significant main effect of T / NT as most important person (topic chosen more often than nontopic).

Table A 3.27 Ratings of importance of target sentence for each passage by condition - materials from Experiment 3

Passage	Condition	Rating 1	2	3	4	5
1 MARY	A	1	2	1	1	0
	B	1	2	1	1	0
	C	4	0	1	0	0
	D	1	1	2	1	0
	E	2	3	0	0	0
	F	3	1	0	1	0
	G	3	2	0	0	0
	H	1	3	1	0	0
2 JAMES	A	1	1	2	1	0
	B	1	2	1	1	0
	C	1	1	1	2	0
	D	0	3	1	1	0
	E	1	1	1	1	1
	F	1	2	1	1	0
	G	0	1	1	2	1
	H	0	0	1	4	0
3 CARL	A	1	1	0	2	1
	B	1	0	2	1	1
	C	0	1	2	1	1
	D	1	1	3	0	0
	E	1	2	0	1	1
	F	1	0	1	2	1
	G	0	1	3	0	1
	H	0	3	0	1	1
4 SARAH	A	0	2	0	2	1
	B	0	2	1	2	0
	C	0	1	3	1	0
	D	0	2	1	2	0
	E	1	2	2	0	0
	F	0	0	2	2	1
	G	1	2	2	0	0
	H	1	2	1	1	0
5 CLARE	A	1	0	1	1	2
	B	1	1	0	3	0
	C	0	1	2	2	0
	D	2	1	0	2	0
	E	2	0	1	1	1
	F	1	1	1	1	1
	G	1	1	1	0	2
	H	0	2	2	1	0

Table A 3.27 continued

Passage	Condition	Rating 1	2	3	4	5
	A	1	1	2	1	0
	B	2	2	0	1	0
	C	3	2	0	0	0
6 MR BENTLEY	D	0	2	1	1	1
	E	1	3	0	0	1
	F	0	3	2	0	0
	G	3	0	2	0	0
	H	1	3	1	0	0
	A	0	1	2	0	2
	B	0	1	0	2	2
	C	0	1	0	4	0
7 HERB	D	1	2	0	2	0
	E	0	1	1	1	2
	F	0	0	3	0	2
	G	0	1	2	2	0
	H	0	1	1	0	3
	A	0	3	2	0	0
	B	0	0	3	1	1
	C	1	1	2	0	1
8 COLIN	D	0	1	0	2	2
	E	0	2	1	1	1
	F	1	0	1	2	1
	G	0	2	2	1	0
	H	1	0	3	0	1
	A	1	1	0	0	3
	B	2	1	1	1	0
	C	4	1	0	0	0
9 MR ROBERTS	D	0	1	2	0	2
	E	1	3	1	0	0
	F	0	2	0	1	2
	G	1	0	0	3	1
	H	1	1	1	2	0
	A	2	0	1	1	1
	B	0	2	2	1	0
	C	0	1	1	1	2
10 PENNY	D	0	2	1	1	1
	E	1	0	3	0	1
	F	1	1	1	1	1
	G	1	0	2	0	2
	H	1	1	2	1	0

Table A 3.27 continued

Passage	Condition	Rating 1	2	3	4	5
	A	1	0	1	1	2
	B	1	0	3	1	0
	C	1	0	1	3	0
11 FIONA	D	1	0	2	2	0
	E	0	2	0	3	0
	F	0	1	1	2	1
	G	1	1	1	2	0
	H	1	0	1	2	1
	A	1	1	2	0	1
	B	2	0	3	0	0
	C	0	1	1	1	2
12 RORY	D	0	2	2	0	1
	E	0	0	4	1	0
	F	2	0	2	1	0
	G	0	3	1	1	0
	H	2	2	1	0	0

Condition	Order	
A	X	TS
B	X	TO
C	X	NTS
D	X	NTO
E	Y	TS
F	Y	TO
G	Y	NTS
H	Y	NTO

Order X = Nontopic most recently mentioned
Order Y = Topic most recently mentioned

Table A 3.28 Mean ratings of importance of target sentence by condition - materials from Experiment 3

Topic as most recently mentioned character (Order Y)

Pronoun referent	TOPIC	NONTOPIC	$\bar{x}$
SUBJECT	2.77	2.82	2.80
OBJECT	3.05	2.80	2.93
$\bar{x}$	2.91	2.81	

Nontopic as most recently mentioned character (Order X)

Pronoun referent	TOPIC	NONTOPIC	$\bar{x}$
SUBJECT	3.05	2.80	2.93
OBJECT	2.80	2.97	2.89
$\bar{x}$	2.93	2.89	

Table A 3.29 Mean rating of importance of target sentence for each passage by condition - materials from Experiment 3

Across order

Passage		Pronoun referred to: Topic Subject	Topic Object	Nontopic Subject	Nontopic Object
1	MARY	2.00	2.10	1.40	2.30
2	JAMES	2.80	2.40	3.20	3.20
3	CARL	3.00	3.30	3.30	2.70
4	SARAH	2.80	3.40	2.60	2.70
5	CLARE	3.20	3.00	3.20	2.60
6	MR BENTLEY	2.50	2.20	1.60	2.60
7	HERB	3.70	3.90	3.40	3.30
8	COLIN	2.80	3.50	2.80	3.50
9	MR ROBERTS	2.80	2.90	2.40	3.20
10	PENNY	2.90	2.90	3.60	2.90
11	FIONA	3.40	3.20	3.00	3.20
12	RORY	3.00	2.30	3.20	2.40
Overall mean		2.91	2.93	2.81	2.88

Table A 3.30 Summary tables for the analyses of variance of ratings by condition - materials from Experiment 3

Across order

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	39	47.04			
Within readers	120	58.17			
Pronoun = T/NT	1	0.23	0.23	0.49	0.50
Error (a)	39	18.06	0.46		
Pronoun = S/O	1	0.07	0.07	0.13	0.72
Error (b)	39	21.53	0.55		
Pronoun = T/NT x S/O	1	0.03	0.03	0.05	0.81
Error (ab)	39	18.26	0.47		
Total		105.21			

No significant effects.

F_2 Analysis by passages

Source	df	Sum of Squares	Mean Squares	F_2	p
Between passages	11	8.28			
Within passages	36	4.45			
Pronoun = T/NT	1	0.06	0.06	0.63	0.55
Error (a)	11	1.06	0.10		
Pronoun = S/O	1	0.03	0.03	0.13	0.72
Error (b)	11	2.07	0.19		
Pronoun = T/NT x S/O	1	0.01	0.01	0.09	0.76
Error (ab)	11	1.23	0.11		
Total		12.73			

No significant effects.

Table A 3.31 Number of times the topic, the nontopic or neither was chosen as the most important person for each passage by condition - materials from Experiment 3

		Order X				Order Y			
Pronoun referred to:		Topic		Nontopic		Topic		Nontopic	
Passage	MIP	S	O	S	O	S	O	S	O
1 MARY	T	2	0	1	1	4	3	2	5
	NT	1	0	1	3	0	0	1	0
	N	2	5	3	1	1	1	2	0
2 JAMES	T	2	1	1	2	3	0	2	3
	NT	0	0	2	1	0	2	1	0
	N	3	4	1	2	2	3	1	2
3 CARL	T	2	2	1	2	2	1	2	1
	NT	0	0	0	0	0	0	0	1
	N	3	3	4	3	2	3	3	3
4 SARAH	T	2	2	1	4	2	1	1	1
	NT	0	1	2	0	0	3	1	1
	N	3	2	2	1	3	1	3	2
5 CLARE	T	5	1	1	2	2	3	3	1
	NT	0	2	1	2	0	0	1	2
	N	0	2	3	1	3	2	1	2
6 MR BENTLEY	T	2	1	4	5	3	2	2	4
	NT	0	3	1	0	0	0	0	0
	N	3	1	0	0	2	3	3	1
7 HERB	T	1	2	3	2	1	0	2	3
	NT	1	2	1	0	1	1	2	1
	N	3	1	1	3	3	4	1	1
8 COLIN	T	1	1	0	0	1	2	1	0
	NT	1	1	2	1	1	1	2	1
	N	3	3	3	4	3	2	2	3
9 MR ROBERTS	T	3	3	1	3	3	2	0	1
	NT	0	0	2	0	0	1	4	1
	N	2	2	2	2	2	2	1	3
10 PENNY	T	2	3	0	3	3	0	0	0
	NT	1	0	1	0	1	1	2	1
	N	2	2	4	2	1	4	3	4
11 FIONA	T	0	1	0	0	1	0	1	1
	NT	1	0	1	1	1	0	0	1
	N	4	4	4	4	2	5	4	3
12 RORY	T	2	2	1	1	4	0	0	2
	NT	0	0	2	1	0	0	2	0
	N	3	3	2	3	1	5	3	3

(MIP = most important person)

Table A 3.32 Frequency with which the topic or the nontopic was chosen as the most important person for each passage by condition - materials from Experiment 3

Across order

Most important person: Passage		Pronoun referred to: Topic Subject T	Topic Subject NT	Topic Object T	Topic Object NT	Nontopic Subject T	Nontopic Subject NT	Nontopic Object T	Nontopic Object NT
1	MARY	6	1	3	0	3	2	6	3
2	JAMES	5	0	1	2	3	3	5	1
3	CARL	4	0	3	0	3	0	3	1
4	SARAH	4	0	3	4	2	3	5	1
5	CLARE	7	0	4	2	4	2	3	4
6	MR BENTLEY	5	0	3	3	6	1	9	0
7	HERB	2	2	2	3	5	3	5	1
8	COLIN	2	2	3	2	1	4	0	2
9	MR ROBERTS	6	0	5	1	1	6	4	1
10	PENNY	5	2	3	1	0	3	3	1
11	FIONA	1	2	1	0	1	1	1	2
12	RORY	6	0	2	0	1	4	3	1
Overall mean		4.4	0.8	2.8	1.5	2.5	2.7	3.9	1.5

Table A 3.33 Summary tables for the analyses of variance of judgements of most important person by condition - materials from Experiment 3

Across order

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	39	32.5			
Within readers	280	175.50			
Pronoun = T/NT	1	0.61	0.61	2.42	0.12
Error (a)	39	9.89	0.25		
Pronoun = S/O	1	0.20	0.20	0.63	0.56
Error (b)	39	12.30	0.31		
T/NT as MIP	1	23.11	23.11	38.54	0.00
Error (c)	39	23.39	0.60		
Pronoun = T/NT x S/O	1	0.61	0.61	1.34	0.25
Error (ab)	39	17.89	0.46		
Pronoun = T/NT x MIP	1	3.20	3.20	6.15	0.02
Error (ac)	39	20.30	0.52		
Pronoun = S/O x MIP	1	0.01	0.01	0.03	0.86
Error (bc)	39	16.49	0.42		
Pron = T/NT x S/O x MIP	1	11.25	11.25	12.10	0.002
Error (abc)	39	36.25	0.93		
Total		208.00			

Significant main effect of T/NT as the most important person (topic chosen more often than the nontopic) and significant interactions between the pronoun referring to the topic or nontopic and choice of MIP and between pronoun referring to the topic or nontopic, the subject or object and choice of MIP.

Table A 3.33 continued

F_2 Analysis by passages

Source	df	Sum of Squares	Mean Squares	F_2	p
Between passages	11	39.50			
Within passages	84	314.50			
Pronoun = T/NT	1	2.04	2.04	2.05	0.18
Error (a)	11	10.96	1.00		
Pronoun = S/O	1	0.67	0.67	0.94	0.64
Error (b)	11	7.83	0.71		
T/NT as MIP	1	77.04	77.04	16.80	0.002
Error (c)	11	50.46	4.59		
Pronoun = T/NT x S/O	1	2.04	2.04	1.41	0.26
Error (ab)	11	15.96	1.45		
Pronoun = T/NT x MIP	1	10.67	10.67	2.20	0.16
Error (ac)	11	53.33	4.85		
Pronoun = S/O x MIP	1	0.04	0.04	0.03	0.86
Error (bc)	11	16.46	1.50		
Pron = T/NT x S/O x MIP	1	37.50	37.50	13.98	0.004
Error (abc)	11	29.50	2.68		
Total		354.00			

Significant main effect of T/NT as most important person (topic chosen more often than the nontopic) and significant interaction between pronoun referring to the topic or nontopic, the subject or object and MIP.

Table A 3.34 Assignments made in check on materials used in Experiment 2

Passage		Number of assignments to SUBJECT	OBJECT	NEITHER (ambiguous)
1	MARY	4		1
2	JAMES	2	3	
3	JANE	5		
4	SARAH	5		
5	SHAUN	4		1
6	MR BENTLEY	5		
7	HERBIE	5		
8	DIANE	5		
9	MR ROBERTS	5		
10	SIMON	5		
11	FIONA *		5	
12	RORY	5		
Total		50	8	2

* Preference for object assignments probably due to reciprocal nature of verbs in this sentence.

Table A 3.35 Mean reading rates (words per second) for each passage by condition and consistency of subject assignment in check on materials - Experiment 2

Across order

Consistent subject assignment passages

Passage		Topic = Subject	Nontopic = Subject
3	JANE	3.45	3.57
4	SARAH	4.98	4.86
6	MR BENTLEY	5.03	2.90
7	HERBIE	4.14	4.03
8	DIANE	5.02	4.15
9	MR ROBERTS	5.23	5.10
10	SIMON	2.41	1.99
12	RORY	4.65	3.58
Overall mean		4.36	3.77

Others

Passage		Topic = Subject	Nontopic = Subject
1	MARY	2.68	3.59
2	JAMES	2.51	2.48
5	SHAUN	4.07	4.27
11	FIONA	4.15	2.98
Overall mean		3.35	3.33

Table A 4.1 Number of assignments to the subject and object in each passage by condition - Experiment 4

		Order X				Order Y			
		T = S		NT = S		T = S		NT = S	
Passage	Assignment to:	S	O	S	O	S	O	S	O
1	MARY	5	1	4	2	3	3	6	0
2	JAMES	5	1	6	0	4	2	6	0
3	JANE	5	1	6	0	6	0	6	0
4	SARAH	4	2	5	1	6	0	6	0
5	SHAUN	6	0	3	3	5	1	4	2
6	MR BENTLEY	5	1	3	3	5	1	5	1
7	HERBIE	6	0	4	2	6	0	6	0
8	DIANE	4	2	6	0	3	3	5	1
9	MR ROBERTS	6	0	6	0	6	0	6	0
10	SIMON	6	0	6	0	6	0	6	0
11	FIONA	4	2	4	2	5	1	2	4
12	RORY	6	0	6	0	6	0	6	0
Overall mean		5.2	0.8	4.9	1.1	5.1	0.9	5.3	0.7

Order X = NT most recently mentioned
Order Y = T most recently mentioned

T = S Topic = Subject of target sentence
NT = S Nontopic = Subject of target sentence

Assignment to S = Subject
Assignment to O = Object

Table A 4.2 Summary tables for the analyses of variance of assignments by condition - Experiment 4

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	23	0.00			
Within readers	168	272.03			
Order X / Y	1	0.00	0.00	1.00	0.33
Error (a)	23	0.00	0.00		
T = S / NT = S	1	0.00	0.00	1.00	0.33
Error (b)	23	0.00	0.00		
Assignment (S/O)	1	216.77	216.77	289.05	0.00
Error (c)	23	17.25	0.75		
Order x T / NT = S	1	0.00	0.00	1.00	0.67
Error (ab)	23	0.00	0.00		
Order x Assignment	1	0.33	0.33	0.49	0.50
Error (ac)	23	15.68	0.68		
T / NT = S x Assignment	1	0.00	0.00	0.00	0.99
Error (bc)	23	12.00	0.52		
Order x T/NT=S x Asst	1	0.75	0.75	0.87	0.18
Error (abc)	23	9.25	0.40		
Total		272.03			

Significant main effect of assignment (more to the subject).

Table A 4.2 continued

F_2 Analysis by passages

Source	df	Sum of Squares	Mean Squares	F_2	p
Between passages	11	0.00			
Within passages	84	548.02			
Order X / Y	1	0.00	0.00	1.00	0.34
Error (a)	11	0.00	0.00		
T = S / NT = S	1	0.00	0.00	1.00	0.34
Error (b)	11	0.00	0.00		
Assignment (S/O)	1	433.54	433.54	94.42	0.00
Error (c)	11	50.51	4.59		
Order x T / NT = S	1	0.00	0.00	1.00	0.66
Error (ab)	11	0.00	0.00		
Order x Assignment	1	0.67	0.67	0.66	0.56
Error (ac)	11	11.33	1.03		
T / NT = S x Assignment	1	0.00	0.00	0.00	0.99
Error (bc)	11	31.99	2.91		
Order x T/NT=S x Asst	1	1.50	1.50	0.89	0.63
Error (abc)	11	18.49	1.68		
Total		548.02			

Significant main effect of assignment (more to the subject).

Table A 4.3 Mean reading rates (words per second) for each passage by condition - Experiment 4

	Order X		Order Y	
Passage	T = S	NT = S	T = S	NT = S
1 MARY	2.42	5.14	2.26	2.85
2 JAMES	2.64	2.03	1.87	3.12
3 JANE	3.25	3.32	3.21	3.89
4 SARAH	5.66	3.38	4.76	3.67
5 SHAUN	3.08	2.98	4.85	3.06
6 MR BENTLEY	3.93	2.66	4.92	3.38
7 HERBIE	3.75	4.18	3.95	6.61
8 DIANE	5.44	3.12	4.03	4.01
9 MR ROBERTS	4.79	3.00	4.67	3.87
10 SIMON	3.00	1.91	2.90	1.97
11 FIONA	4.10	3.86	2.64	5.33
12 RORY	4.79	3.48	3.95	2.47
Overall mean	3.90	3.26	3.67	3.69

Order X = Nontopic most recently mentioned
Order Y = Topic most recently mentioned

T = S Topic as subject of target sentence
NT = S Nontopic as subject of target sentence

Table A 4.4 Summary tables for the analyses of variance of reading rates by condition - Experiment 4

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	23	131.67			
Within readers	72	70.03			
Order X / Y	1	0.14	0.14	0.26	0.62
Error (a)	23	12.84	0.56		
T = S / NT = S	1	2.11	2.11	3.35	0.077
Error (b)	23	14.49	0.63		
Order x T / NT = S	1	2.95	2.95	1.81	0.19
Error (ab)	23	37.49	0.63		
Total		201.71			

Marginally significant main effect of subject of sentence (T = S faster).

F_2 Analysis by passages

Source	df	Sum of Squares	Mean Squares	F_2	p
Between passages	11	21.19			
Within passages	36	32.81			
Order X / Y	1	0.11	0.11	0.21	0.66
Error (a)	11	5.96	0.54		
T = S / NT = S	1	1.19	1.19	0.76	0.59
Error (b)	11	17.39	0.58		
Order x T / NT = S	1	1.34	1.34	2.16	0.17
Error (ab)	11	6.81	0.62		
Total		54.00			

No significant main effects.

Table A 4.5 Mean reading rates (words per second) for each passage by condition and assignment - Experiment 4

Means calculated across order

Passage	Assignment to:	Topic = Subject		Nontopic = Subject	
		Subject	Object	Subject	Object
1	MARY	1.92	3.18	3.96	4.16
2	JAMES	2.14	2.59	2.58	
3	JANE	3.18	3.75	3.61	
4	SARAH	4.76	7.49	3.71	1.45
5	SHAUN	3.78	4.92	3.15	2.84
6	MR BENTLEY	4.84	2.34	2.79	3.48
7	HERBIE	3.85		5.76	3.58
8	DIANE	5.57	3.46	3.77	1.92
9	MR ROBERTS	4.73		3.44	
10	SIMON	2.95		1.94	
11	FIONA	3.42	3.22	4.73	4.47
12	RORY	4.37		2.97	
Overall mean		3.79	3.87	3.53	3.13

Table A 4.6 Summary tables for the analyses of variance of reading rates by condition for subject assignments only - Experiment 4

Across order

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	23	70.96			
Within readers	24	9.89			
T = S / NT = S	1	1.82	1.82	5.19	0.03
Error	23	8.07	0.35		
Total		80.85			

Significant main effect of subject of sentence (T = S faster).

F_2 Analysis by passages

Source	df	Sum of Squares	Mean Squares	F_2	p
Between passages	11	13.66			
Within passages	12	11.75			
T = S / NT = S	1	0.40	0.40	0.39	0.55
Error	11	11.34	1.03		
Total		25.41			

No significant effect.

Table A 4.7 Mean verification rates for each passage by condition and response - Experiment 4

Across order

Passage	Response	Topic = Subject TRUE	Topic = Subject FALSE	Nontopic = Subject TRUE	Nontopic = Subject FALSE
1	MARY	2.66	1.33	2.48	2.66
2	JAMES	3.17	2.91	3.87	3.28
3	JANE	3.59	3.30	4.48	3.71
4	SARAH	2.88	2.17	3.16	1.36
5	SHAUN	2.43	2.28	2.20	2.39
6	MR BENTLEY	3.63	1.82	2.60	2.03
7	HERBIE	3.76	3.53	3.32	4.58
8	DIANE	3.31	1.63	2.48	2.34
9	MR ROBERTS	3.31	2.87	2.39	3.87
10	SIMON	4.03	2.15	4.99	2.70
11	FIONA	3.50	1.39	3.67	2.54
12	RORY	4.91	2.81	4.66	3.79
Overall mean		3.43	2.35	3.36	2.94

Table A 4.8 Summary tables for the analyses of variance of verification rates by condition and response - Experiment 4

Across order

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_2	p
Between readers	23	44.28			
Within readers	68*	47.42			
T = S / NT = S	1	1.16	1.16	3.34	0.077
Error (a)	23	8.01	0.35		
True / False	1	8.04	8.04	14.62	0.001
Error (b)	23	12.65	0.55		
T / NT = S x True / False	1	2.65	2.65	4.09	0.052
Error (ab)	19*	14.90	0.65		
Total		91.71			

* Degrees of freedom adjusted to take account of the use of Winer's formula.

Significant main effect of response ('true' faster than 'false'), marginally significant main effect of subject of sentence (NT = S faster) and marginally significant interaction between subject of sentence and response.

F_2 Analysis by passages

Source	df	Sum of Squares	Mean Squares	F_2	p
Between passages	11	18.28			
Within passages	36	20.94			
T = S / NT = S	1	0.80	0.80	5.08	0.044
Error (a)	11	1.72	0.16		
True / False	1	6.78	6.78	9.89	0.009
Error (b)	11	7.54	0.69		
T / NT = S x True / False	1	1.31	1.31	5.19	0.042
Error (ab)	11	2.78	0.25		
Total		39.22			

Significant main effects of T / NT = S (NT = S faster) and response ('true' faster than 'false') and significant interaction between subject of sentence and response.

Table A 4.9 Mean reading rates (words per second) for each passage by condition - Experiment 5

Pronoun refers to: / Passage	Order X				Order Y			
	Topic		Nontopic		Topic		Nontopic	
	S	O	S	O	S	O	S	O
1 MARY	3.26	3.63	4.08	3.24	3.60	3.33	3.91	3.50
2 JAMES	3.36	2.96	2.80	2.97	3.58	2.65	3.10	3.28
3 CARL	3.88	3.62	4.34	3.10	3.66	3.98	3.35	4.00
4 SARAH	4.45	4.03	3.68	4.58	4.57	4.29	4.01	4.38
5 CLARE	4.64	4.19	5.64	3.31	4.80	4.58	5.75	3.22
6 MR BENT.	3.92	3.45	3.33	2.87	4.80	2.03	3.67	3.06
7 HERB	3.81	2.17	3.00	2.60	3.02	3.29	2.94	2.51
8 COLIN	4.14	2.98	3.28	3.81	3.21	4.03	4.13	2.95
9 MR ROB.	4.20	4.44	4.66	3.02	4.70	3.04	5.68	2.60
10 PENNY	2.83	1.97	2.78	1.81	4.05	2.28	2.33	2.22
11 FIONA	4.05	2.28	2.33	2.22	4.40	4.10	3.77	4.60
12 RORY	4.73	4.55	3.82	4.58	3.88	4.23	4.92	4.42
Overall mean	3.97	3.51	3.77	3.37	4.00	3.56	3.95	3.53

MR BENT. = MR BENTLEY
MR ROB. = MR ROBERTS

Order X = Nontopic most recently mentioned
Order Y = Topic most recently mentioned

S = Subject
O = Object

Table A 4.10 Summary tables for the analyses of variance of reading rates by condition - Experiment 5

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	47	159.24			
Order X/Y	1	0.49	0.49	0.14	0.71
Error (a)	46	158.75	3.45		
Within readers	144	115.71			
Pronoun = T/NT	1	0.59	0.59	1.28	0.26
Pronoun = T/NT x Order	1	0.17	0.17	0.36	0.56
Error (b)	46	21.25	0.46		
Pronoun = S/O	1	8.21	8.21	8.78	0.005
Pronoun = S/O x Order	1	0.006	0.006	0.007	0.93
Error (c)	46	43.05	0.94		
Pronoun = T/NT x S/O	1	0.06	0.06	0.07	0.80
Pron = T/NT x S/O x Order	1	0.00	0.00	0.00	0.99
Error (bc)	46	42.37	0.92		
Total		274.95			

Significant main effect of pronoun referring to the subject or object (pronoun = subject faster).

Table A 4.10 continued

F_2 Analysis by passages

Source	df	Sum of Squares	Mean Squares	F_2	p
Between passages	11	37.20			
Within passages	84	34.86			
Order X/Y	1	0.27	0.27	4.36	0.058
Error (a)	11	0.69	0.06		
Pronoun = T/NT	1	0.27	0.27	3.24	0.097
Error (b)	11	0.91	0.08		
Pronoun = S/O	1	4.35	4.35	4.19	0.063
Error (c)	11	11.44	1.04		
Order x Pronoun = T/NT	1	0.10	0.10	0.74	0.59
Error (ab)	11	1.41	0.13		
Order x Pronoun = S/O	1	0.00	0.00	0.00	0.996
Error (ac)	11	4.64	0.42		
Pronoun = T/NT x S/O	1	0.01	0.01	0.02	0.88
Error (bc)	11	6.68	0.61		
Order x Pron = T/NT x S/O	1	0.00	0.00	0.01	0.93
Error (abc)	11	4.10	0.37		
Total		72.07			

Marginally significant main effects of order (Order Y faster), pronoun referring to the topic or the nontopic (pronoun = T faster) and pronoun referring to the subject or the object (pronoun = S faster).

Table A 4.11 Mean reading rates (words per second) for each passage by accuracy of response - Experiment 5

Passage		Question answered Correctly	Incorrectly
1	MARY	3.54	3.68
2	JAMES	3.11	3.25
3	CARL	3.72	4.42
4	SARAH	4.13	4.64
5	CLARE	4.30	5.90
6	MR BENTLEY	3.38	3.55
7	HERB	2.83	3.36
8	COLIN	3.65	3.42
9	MR ROBERTS	4.07	4.20
10	PENNY	2.65	1.81
11	FIONA	4.54	4.39
12	RORY	4.47	4.65
Overall mean		3.70	3.94

Table A 4.12 Summary tables for the analyses of variance of reading rates by accuracy of response - Experiment 5

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	42	123.58			
Within readers	43	39.36			
Accuracy of response	1	0.20	0.20	0.22	0.65
Error	42	39.16	0.93		
Total		162.94			

No significant effect.

F_2 Analysis by passages

Source	df	Sum of Squares	Mean Squares	F_2	p
Between passages	11	13.60			
Within passages	12	2.24			
Accuracy of response	1	0.35	0.35	2.00	0.18
Error	11	1.90	0.17		
Total		15.84			

No significant effect.

The data from five readers were excluded from both analyses because of missing data.

Table A 4.13 Mean correct verification rates for each passage by condition - Experiment 5

Pronoun refers to: Passage	Order X Topic S	Order X Topic O	Order X Nontopic S	Order X Nontopic O	Order Y Topic S	Order Y Topic O	Order Y Nontopic S	Order Y Nontopic O
1 MARY	4.71	4.20	5.09	4.19	4.49	3.29	3.88	3.46
2 JAMES	4.96	4.66	5.57	5.01	4.45	4.04	5.53	3.26
3 CARL	4.93	5.33	5.11	4.39	4.28	5.90	4.58	3.49
4 SARAH	2.88	2.06	3.15	1.86	3.18	3.32	2.98	1.78
5 CLARE	2.95	3.18	4.91	3.40	3.37	4.27	4.26	3.97
6 MR BENT.	2.51	2.96	2.54	2.11	3.28	1.63	2.51	2.32
7 HERB	4.03	4.26	3.99	2.82	3.91	3.49	4.54	2.94
8 COLIN	2.86	3.24	2.75	3.08	3.68	2.78	3.01	2.63
9 MR ROB.	3.65	3.52	2.81	2.62	2.90	3.06	2.35	2.34
10 PENNY	3.92	3.13	4.07	3.70	5.48	2.14	4.43	4.87
11 FIONA	4.36	3.47	3.67	4.47	3.91	4.25	3.92	4.54
12 RORY	4.98	4.48	5.07	4.69	4.59	3.99	4.76	4.10
Overall mean	3.90	3.71	4.06	3.53	3.96	3.51	3.90	3.31

MR BENT. = MR BENTLEY
MR ROB. = MR ROBERTS

Order X = Nontopic most recently mentioned
Order Y = Topic most recently mentioned

S = Subject
O = Object

Table A 4.14 Summary tables for the analyses of variance of verification rates by condition - Experiment 5

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	47	87.48			
Order X/Y	1	0.74	0.74	0.41	0.533
Error (a)	46	83.74	1.82		
Within readers	142*	119.19			
Pronoun = T/NT	1	0.05	0.05	0.08	0.781
Order x Pronoun = T/NT	1	0.85	0.85	1.26	0.268
Error (b)	46	30.97	0.67		
Pronoun = S/O	1	8.48	8.48	7.78	0.008
Order x Pronoun = S/O	1	0.54	0.54	0.50	0.509
Error (c)	46	50.19	1.09		
Pron = T/NT x S/O	1	0.48	0.48	0.80	0.621
Order x Pron = T/NT x S/O	1	0.16	0.16	0.03	0.866
Error (bc)	44*	27.62	0.60		
Total		203.67			

* Degrees of freedom adjusted to take account of the use of Winer's formula.

Significant main effect of pronoun referring to the subject or object (Pronoun = Subject faster).

Table A 4.14 continued

F_2 Analysis by passages

Source	df	Sum of Squares	Mean Squares	F_2	p
Between passages	11	55.79			
Within passages	84	32.99			
Order X/Y	1	0.40	0.40	1.06	0.326
Error (a)	11	4.11	0.37		
Pronoun = T/NT	1	0.12	0.12	0.27	0.618
Error (b)	11	4.85	0.44		
Pronoun = S/O	1	4.62	4.62	13.73	0.004
Error (c)	11	3.70	0.34		
Order x Pronoun = T/NT	1	0.10	0.10	0.70	0.574
Error (ab)	11	1.55	0.14		
Order x Pronoun = S/O	1	0.15	0.15	0.63	0.551
Error (ac)	11	2.58	0.23		
Pronoun = T/NT x S/O	1	0.35	0.35	0.55	0.518
Error (bc)	11	7.14	0.65		
Order x Pron = T/NT x S/O	1	0.06	0.06	0.21	0.659
Error (abc)	11	3.27	0.30		
Total		88.78			

Significant main effect of pronoun referring to the subject or object (Pronoun = Subject faster).

Table A 4.15 Mean reading rates (words per second) for each passage by condition and consistency of subject assignment in check on materials - Experiment 4

Across order

Consistent subject assignment passages

Passage		T = S	NT = S
3	JANE	3.23	3.61
4	SARAH	5.21	3.52
6	MR BENTLEY	4.43	3.02
7	HERBIE	3.85	5.39
8	DIANE	4.80	3.60
9	MR ROBERTS	4.73	3.44
10	SIMON	2.95	1.94
12	RORY	4.37	2.97
Overall mean		4.20	3.44

Others

Passage		T = S	NT = S
1	MARY	2.34	4.00
2	JAMES	2.26	2.58
5	SHAUN	3.89	3.02
11	FIONA	3.37	4.60
Overall mean		2.97	3.55

Table A 5.1 Number of assignments to the subject and object for each sentence by condition - Experiment 6(a)

Sentence	Assignment to:	'Topic' = Subject		'Nontopic' = Subject	
		Subject	Object	Subject	Object
1	MARY	3	3	1	5
2	JAMES	0	6	5	1
3	JANE	6	0	5	1
4	SARAH	5	1	2	4
5	SHAUN	6	0	5	1
6	MR BENTLEY	6	0	2	4
7	HERBIE	6	0	4	2
8	DIANE	6	0	5	1
9	MR ROBERTS	6	0	6	0
10	SIMON	6	0	6	0
11	FIONA	0	6	0	6
12	RORY	3	3	2	4
Overall mean		4.4	1.6	3.6	2.4

Table A 5.2 Summary tables for the analyses of variance of assignments by condition - Experiment 6(a)

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	11	0.00			
Within readers	36	91.96			
'T' = S / 'NT' = S	1	0.00	0.00		
Error (a)	11	0.00	0.00		
Assignment (S/O)	1	47.98	47.98	20.31	0.001
Error (b)	11	25.99	2.36		
'T'/'NT'=S x Assignment	1	8.34	8.34	9.51	0.010
Error (ab)	11	9.65	0.88		
Total		91.96			

Significant main effect of assignments (more to the subject than to the object) and significant interaction between assignment and subject of sentence.

F_2 Analysis by sentences

Source	df	Sum of Squares	Mean Squares	F_2	p
Between sentences	11	0.00			
Within sentences	36	271.94			
'T' = S / 'NT' = S	1	0.00	0.00		
Error (a)	11	0.00	0.00		
Assignment (S/O)	1	47.98	47.98	3.26	0.096
Error (b)	11	161.96	14.72		
'T'/'NT'=S x Assignment	1	8.33	8.33	1.71	0.22
Error (ab)	11	53.68	4.88		
Total		271.94			

Marginally significant main effect of assignment (more to the subject than to the object).

Table A 5.3 Number of assignments to the subject and object in each sentence by condition - Experiment 6(b)

Sentence	Assignment to:	'Topic' = Subject		'Nontopic' = Subject	
		Subject	Object	Subject	Object
1	MARY	3	3	5	1
2	JAMES	3	3	5	1
3	JANE	5	1	6	0
4	SARAH	5	1	3	3
5	SHAUN	6	0	6	0
6	MR BENTLEY	3	3	2	4
7	HERBIE	6	0	5	1
8	DIANE	6	0	6	0
9	MR ROBERTS	5	1	4	2
10	SIMON	6	0	6	0
11	FIONA	0	6	0	6
12	RORY	5	1	4	2
Overall mean		4.4	1.6	4.3	1.7

Table A 5.4 Summary tables for the analyses of variance of assignments by condition - Experiment 6(b)

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	11	0.00			
Within readers	36	125.96			
'T' = S / 'NT' = S	1	0.00	0.00		
Error (a)	11	0.00	0.00		
Assignment (S/O)	1	90.72	92.72	97.38	0.00
Error (b)	11	10.25	0.93		
'T'/'NT'=S x Assignment	1	0.08	0.08	0.04	0.85
Error (ab)	11	25.91	2.26		
Total		125.96			

Significant main effect of assignment (more to the subject).

F_2 Analysis by sentences

Source	df	Sum of Squares	Mean Squares	F_2	p
Between sentences	11	0.00			
Within sentences	36	242.04			
'T' = S / 'NT' = S	1	0.00	0.00		
Error (a)	11	0.00	0.00		
Assignment (S/O)	1	90.78	90.78	7.44	0.02
Error (ab)	11	134.25	12.20		
'T'/'NT'=S x Assignment	1	0.08	0.08	0.05	0.81
Error (ab)	11	16.93	1.54		
Total		242.04			

Significant main effect of assignment (more to the subject).

Table A 5.5 Mean assignment rates (words per second) for each sentence by condition - Experiment 6(a)

Sentence		'Topic' = Subject	'Nontopic' = Subject
1	MARY	2.66	1.41
2	JAMES	1.42	1.76
3	JANE	2.02	2.17
4	SARAH	2.09	2.16
5	SHAUN	1.74	2.12
6	MR BENTLEY	2.66	2.50
7	HERBIE	1.94	1.68
8	DIANE	2.37	2.69
9	MR ROBERTS	2.49	2.21
10	SIMON	2.93	2.14
11	FIONA	1.90	2.29
12	RORY	2.02	1.51
Overall mean		2.19	2.05

Table A 5.6 Summary tables for the analyses of variance of assignment rates by condition - Experiment 6(a)

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	11	5.40			
Within readers	12	0.64			
'T' = S / 'NT' = S	1	0.11	0.11	2.19	0.16
Error	11	0.54	0.05		
Total		6.05			

No significant effect.

F_2 Analysis by sentences

Source	df	Sum of Squares	Mean Squares	F_2	p
Between sentences	11	2.30			
Within sentences	12	1.58			
'T' = S / 'NT' = S	1	0.11	0.11	0.80	0.61
Error	11	1.47	0.13		
Total		3.89			

No significant effect.

Table A 5.7 Mean assignment rates (words per second) for each sentence by condition and assignment - Experiment 6(a)

Assignment to: Sentence	'Topic' = Subject		'Nontopic' = Subject	
	Subject	Object	Subject	Object
1 MARY	2.68	2.64	1.77	1.34
2 JAMES		1.42	1.61	2.52
3 JANE	2.02		2.26	1.72
4 SARAH	2.18	1.67	2.57	1.95
5 SHAUN	1.74		2.28	1.32
6 MR BENTLEY	2.66		3.56	1.98
7 HERBIE	1.94		2.04	0.98
8 DIANE	2.37		2.87	1.78
9 MR ROBERTS	2.49		2.21	
10 SIMON	2.93		2.14	
11 FIONA		1.90		2.29
12 RORY	2.06	1.99	1.07	1.73
Overall mean	2.31	1.92	2.22	1.76

Table A 5.8 Summary table (by readers) for the analysis of variance of assignment rates by condition and assignment - Experiment 6(a)

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	11	11.63			
Within readers	36	7.11			
'T' = S / 'NT' = S	1	0.07	0.07	0.62	0.55
Error (a)	11	1.33	0.12		
Assignment (S/O)	1	2.41	2.41	23.03	0.001
Error (b)	11	1.15	0.10		
'T'/'NT'=S x Assignment	1	0.00	0.00	0.02	0.89
Error (ab)	11	2.15	0.20		
Total		18.74			

Significant main effect of assignment (faster when assignment was to the subject than when assignment was to the object).

Table A 5.9 Mean assignment rates (words per second) for each sentence by condition - Experiment 6(b)

Sentence		'Topic' = Subject	'Nontopic' = Subject
1	MARY	2.20	1.71
2	JAMES	1.37	1.46
3	JANE	2.04	1.84
4	SARAH	2.07	2.03
5	SHAUN	2.46	2.43
6	MR BENTLEY	1.74	1.73
7	HERBIE	1.88	2.31
8	DIANE	2.05	2.13
9	MR ROBERTS	2.53	2.47
10	SIMON	1.71	1.95
11	FIONA	1.97	2.62
12	RORY	1.44	2.11
Overall mean		1.96	2.07

Table A 5.10 Summary tables for the analyses of variance of assignment rates by condition - Experiment 6(b)

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	11	7.25			
Within readers	12	1.08			
'T' = S / 'NT' = S	1	0.07	0.07	0.82	0.61
Error	11	1.00	0.09		
Total		8.32			

No significant effect.

F_2 Analysis by sentences

Source	df	Sum of Squares	Mean Squares	F_2	p
Between sentences	11	2.10			
Within sentences	12	0.71			
'T' = S / 'NT' = S	1	0.07	0.07	1.28	0.28
Error	11	0.63	0.06		
Total		2.81			

No significant effect.

Table A 5.11 Mean assignment rates (words per second) for each sentence by condition and assignment - Experiment 6(b)

Sentence	Assignment to:	'Topic' = Subject		'Nontopic' = Subject	
		Subject	Object	Subject	Object
1	MARY	1.94	2.46	1.99	0.31
2	JAMES	1.53	1.22	1.44	1.55
3	JANE	2.15	1.51	1.84	
4	SARAH	2.04	2.22	2.11	1.95
5	SHAUN	2.46		2.43	
6	MR BENTLEY	1.40	2.08	1.83	1.68
7	HERBIE	1.88		2.47	1.51
8	DIANE	2.05		2.13	
9	MR ROBERTS	2.55	2.46	2.65	2.12
10	SIMON	1.71		1.95	
11	FIONA		1.97		2.62
12	RORY	1.40	1.65	2.39	1.57
Overall mean		1.92	1.95	2.11	1.66

Table A 5.12 Summary table (by readers) for the analysis of variance of assignment rates by condition and assignment - Experiment 6(b)

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	11	11.62			
Within readers	36	7.08			
'T' = S / 'NT' = S	1	0.06	0.06	0.17	0.69
Error (a)	11	3.50	0.32		
Assignment (S/O)	1	0.07	0.07	0.62	0.55
Error (b)	11	1.68	0.11		
'T'/'NT'=S x Assignment	1	0.01	0.01	0.03	0.86
Error (ab)	11	2.29	0.21		
Total		18.70			

No significant effects.

Table A 5.13 Mean reading rates (words per second) for each sentence by condition - Experiment 7(a)

Sentence		'Topic' = Subject	'Nontopic' = Subject
1	MARY	3.67	4.23
2	JAMES	3.65	3.72
3	JANE	3.25	3.25
4	SARAH	4.42	4.66
5	SHAUN	3.82	3.48
6	MR BENTLEY	4.57	4.35
7	HERBIE	4.50	4.26
8	DIANE	3.99	3.94
9	MR ROBERTS	4.24	4.78
10	SIMON	4.04	3.90
11	FIONA	3.60	3.44
12	RORY	4.12	4.17
Overall mean		3.99	4.02

Table A 5.14 Summary tables for the analyses of variance of reading rates by condition - Experiment 7(a)

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	11	104.64			
Within readers	12	1.56			
'T' = S / 'NT' = S	1	0.00	0.00	0.03	0.86
Error	11	1.56	0.14		
Total		106.20			

No significant effect.

F_2 Analysis by sentences

Source	df	Sum of Squares	Mean Squares	F_2	p
Between sentences	11	3.90			
Within sentences	12	0.47			
'T' = S / 'NT' = S	1	0.00	0.00	0.09	0.76
Error	11	0.47	0.04		
Total		4.37			

No significant effect.

Table A 5.15 Mean reading rates (words per second) for each sentence by condition - Experiment 7(b)

Sentence		'Topic' = Subject	'Nontopic' = Subject
1	MARY	3.36	3.60
2	JAMES	3.49	2.82
3	JANE	3.75	2.69
4	SARAH	3.65	4.10
5	SHAUN	4.15	3.70
6	MR BENTLEY	4.87	3.65
7	HERBIE	3.57	4.05
8	DIANE	3.26	3.62
9	MR ROBERTS	4.48	4.27
10	SIMON	2.69	2.67
11	FIONA	3.29	3.17
12	RORY	4.25	3.95
Overall mean		3.73	3.52

Table A 5.16 Summary tables for the analyses of variance of reading rates by condition - Experiment 7(b)

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	11	22.04			
Within readers	12	1.19			
'T' = S / 'NT' = S	1	0.26	0.26	3.13	0.10
Error	11	0.92	0.08		
Total		23.22			

No significant effect.

F_2 Analysis by sentences

Source	df	Sum of Squares	Mean Squares	F_2	p
Between sentences	11	5.73			
Within sentences	12	2.02			
'T' = S / 'NT' = S	1	0.26	0.26	1.66	0.22
Error	11	1.75	0.16		
Total		7.75			

No significant effect.

Table A 5.17 Mean reading rates (words per second) for each sentence by condition - Experiment 8(a)

Sentence		Pronoun referred to 'Topic' Subject	'Topic' Object	'Nontopic' Subject	'Nontopic' Object
1	MARY	3.66	3.62	3.37	3.75
2	JAMES	3.18	3.17	3.65	3.64
3	CARL	3.33	2.80	3.22	3.20
4	SARAH	4.54	4.00	4.30	3.90
5	CLARE	3.31	4.13	3.26	3.27
6	MR BENTLEY	4.09	3.58	4.61	3.95
7	HERB	3.11	3.36	3.25	3.51
8	COLIN	4.25	4.13	3.88	3.68
9	MR ROBERTS	4.30	4.17	4.03	3.28
10	PENNY	3.44	3.36	4.08	3.30
11	FIONA	2.96	3.35	2.87	3.46
12	RORY	3.69	3.01	3.66	3.33
Overall mean		3.66	3.56	3.68	3.52

Table A 5.18 Summary tables for the analyses of variance of reading rates by condition - Experiment 8(a)

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	23	85.50			
Within readers	72	18.00			
Pronoun = 'T'/'NT'	1	0.00	0.00	0.003	0.95
Error (a)	23	4.82	0.21		
Pronoun = S/O	1	0.38	0.38	1.25	0.27
Error (b)	23	6.92	0.30		
Pron = 'T'/'NT' x S/O	1	0.03	0.03	0.11	0.75
Error (ab)	23	5.86	0.25		
Total		103.50			

No significant effects.

F_2 Analysis by sentences

Source	df	Sum of Squares	Mean Squares	F_2	p
Between sentences	11	5.58			
Within sentences	36	3.66			
Pronoun = 'T'/'NT'	1	0.00	0.00	0.001	0.97
Error (a)	11	1.31	0.12		
Pronoun = S/O	1	0.20	0.20	1.36	0.27
Error (b)	11	1.61	0.15		
Pron = 'T'/'NT' x S/O	1	0.01	0.01	0.23	0.65
Error (ab)	11	0.53	0.05		
Total		9.24			

No significant effects.

Table A 5.19 Mean reading rates (words per second) for each sentence by condition - Experiment 8(b)

Sentence		Pronoun referred to 'Topic' Subject	'Topic' Object	'Nontopic' Subject	'Nontopic' Object
1	MARY	3.66	3.31	3.89	3.43
2	JAMES	3.07	3.32	2.58	2.64
3	CARL	3.13	3.02	3.13	2.70
4	SARAH	3.70	4.11	3.72	4.05
5	CLARE	3.75	3.88	3.83	3.37
6	MR BENTLEY	3.22	3.06	3.70	3.08
7	HERB	3.03	2.95	2.77	3.30
8	COLIN	2.93	3.42	3.73	2.87
9	MR ROBERTS	3.86	3.63	4.44	3.73
10	PENNY	2.82	2.44	2.46	1.84
11	FIONA	3.25	4.03	2.86	3.64
12	RORY	3.26	4.12	3.39	3.21
Overall mean		3.31	3.44	3.38	3.16

Table A 5.20 Summary tables for the analyses of variance of reading rates by condition - Experiment 8(b)

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	23	112.81			
Within readers	72	17.20			
Pronoun = 'T'/'NT'	1	0.29	0.29	0.94	0.66
Error (a)	23	7.02	0.31		
Pronoun = S/O	1	0.05	0.05	0.22	0.65
Error (b)	23	4.79	0.21		
Pron = 'T'/'NT' x S/O	1	0.75	0.75	3.98	0.06
Error (ab)	23	4.31	0.19		
Total		130.01			

Marginally significant interaction between the pronoun referring to the 'topic' or 'nontopic' and the pronoun referring to the subject or object.

F_2 Analysis by sentences

Source	df	Sum of Squares	Mean Squares	F_2	p
Between sentences	11	8.78			
Within sentences	36	4.10			
Pronoun = 'T'/'NT'	1	0.14	0.14	1.51	0.24
Error (a)	11	1.03	0.09		
Pronoun = S/O	1	0.02	0.02	0.13	0.72
Error (b)	11	1.83	0.17		
Pron = 'T'/'NT' x S/O	1	0.38	0.38	5.97	0.03
Error (ab)	11	0.69	0.06		
Total		12.88			

Significant interaction between pronoun referring to the 'topic' or 'nontopic' and the pronoun referring to the subject or object.

Table A 5.21 Experimental sentences used in Experiment 9

All sentences are shown with the pronoun referring to the person to whom the verb was intended to bias assignment and to the subject of the sentence.

Sentences intended to bias assignment to the male actor

		Number of words
1	James started fighting Elaine and he kicked her.	8
2	Carl often played against Monica and he usually beat her.	10
3	Brian went with Sue to the cinema and he paid for her.	12
4	Peter lived with Jenny and he built her some book shelves.	11
5	Phillip was engaged to Julie and he painted her house.	10
6	Mike took Sarah to the crowded football match and he lifted her up.	13

Sentences intended to bias assignment to the female actor

		Number of words
1	Linda shared a house with John and she nagged him all the time.	13
2	Karen talked to Paul at the disco and she flirted with him.	12
3	Caroline liked David and she cooked him a nice meal.	10
4	Emma went camping with Christopher and she washed his shirts.	10
5	Ann walked home from the ballet with Nick and she pirouetted round him.	13
6	Lucy went to see Robert and she restyled his hair.	10
	Range	8 - 13
	Mean	11

Table A 5.22 Number of times male or female (and subject or object) chosen as the most likely actor at the end of the sentences presented in the pilot study for Experiment 9

Sentences intended to produce a bias toward the male actor

Verb	Male chosen Subject	Object	No preference	Female
kicked	1	1	2	6
beat	4	1	0	5
paid for	3	3	1	3
built	4	3	1	2
painted	5	4	0	1
lifted	5	2	2	1

Sentences intended to produce a bias toward the female actor

Verb	Female chosen Subject	Object	No preference	Male
nagged	3	2	2	3
flirted	5	5	0	0
cooked	5	1	1	3
washed	4	3	2	1
pirouetted	3	2	1	4
restyled	3	3	1	3

Table A 5.23 Mean reading rates (words per second) for each sentence by condition - Experiment 9

Person for whom bias was: / Sentence		Pronoun referred to Subject +ve	Subject -ve	Object +ve	Object -ve
1	JAMES	3.20	2.21	2.07	3.27
2	CARL	3.90	3.97	2.70	2.75
3	BRIAN	4.89	4.46	3.91	2.81
4	PETER	4.09	3.83	4.88	4.35
5	PHILLIP	3.76	3.29	3.29	3.02
6	MIKE	5.52	4.06	4.01	4.15
7	LINDA	3.93	2.66	3.29	2.97
8	KAREN	3.77	4.16	5.78	4.18
9	CAROLINE	4.05	3.36	3.22	4.41
10	EMMA	3.99	3.54	3.32	4.31
11	ANN	5.38	5.54	4.53	4.57
12	LUCY	3.36	3.46	4.54	3.32
Overall mean		4.15	3.71	3.80	3.68

Table A 5.24 Summary tables for the analyses of variance of reading rates by condition - Experiment 9

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	23	95.90			
Within readers	72	35.81			
Pronoun = S/O	1	0.94	0.94	2.45	0.13
Error (a)	23	8.79	0.38		
Pronoun = +ve/-ve bias	1	1.90	1.90	4.23	0.049
Error (b)	23	10.35	0.45		
Pron = S/O x +ve/-ve	1	0.62	0.62	1.09	0.31
Error (ab)	23	13.21	0.57		
Total		131.72			

Significant main effect of bias (faster when pronoun referred to the character with positive bias).

F_2 Analysis by sentences

Source	df	Sum of Squares	Mean Squares	F_2	p
Between sentences	11	18.45			
Within sentences	36	14.26			
Pronoun = S/O	1	0.47	0.47	0.86	0.62
Error (a)	11	5.97	0.54		
Pronoun = +ve/-ve bias	1	0.94	0.94	5.64	0.035
Error (b)	11	1.84	0.17		
Pron = S/O x +ve/-ve	1	0.31	0.31	0.73	0.58
Error (ab)	11	4.72	0.43		
Total		32.71			

Significant main effect of bias (faster when pronoun referred to the character with positive bias).

Table A 5.25 Mean reading rates (words per second) for each sentence by condition - replication of Experiment 8(b)

Sentence		'Topic' Subject	Pronoun referred to 'Topic' Object	'Nontopic' Subject	'Nontopic' Object
1	MARY	3.76	3.65	3.91	4.47
2	JAMES	3.17	2.83	2.69	3.21
3	CARL	3.43	2.70	3.09	3.36
4	SARAH	4.01	4.34	4.12	4.52
5	CLARE	4.20	3.71	3.92	3.89
6	MR BENTLEY	4.80	4.44	4.13	4.36
7	HERB	3.10	3.70	4.07	2.63
8	COLIN	3.28	3.23	3.33	3.50
9	MR ROBERTS	4.24	4.43	3.86	4.28
10	PENNY	2.69	2.95	2.66	2.94
11	FIONA	3.17	3.80	3.61	3.92
12	RORY	3.66	3.59	3.94	3.78
Overall mean		3.63	3.61	3.61	3.74

Table A 5.26 Summary tables for the analyses of variance of reading rates by condition - replication of Experiment 8(b)

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	23	142.70			
Within readers	72	25.14			
Pronoun = 'T'/'NT'	1	0.07	0.07	0.20	0.67
Error (a)	23	8.39	0.37		
Pronoun = S/O	1	0.08	0.08	0.22	0.65
Error (b)	23	7.94	0.35		
Pron = 'T'/'NT' x S/O	1	0.11	0.11	0.29	0.60
Error (ab)	23	8.55	0.37		
Total		167.84			

No significant effects.

F_2 Analysis by sentences

Source	df	Sum of Squares	Mean Squares	F_2	p
Between sentences	11	12.21			
Within sentences	36	3.32			
Pronoun = 'T'/'NT'	1	0.04	0.04	0.67	0.57
Error (a)	11	0.61	0.06		
Pronoun = S/O	1	0.04	0.04	0.49	0.50
Error (b)	11	0.86	0.08		
Pron = 'T'/'NT' x S/O	1	0.06	0.06	0.36	0.57
Error (ab)	11	1.72	0.16		
Total		15.53			

No significant effects.

Table A 6.1 Experimental passages used in Experiment 10

The passages are presented with the sentence units in Order X (T, NT, T, NT) and with the topic as subject of the target sentence (underlined). The questions were the same as those used in Experiment 2 (see Table A 3.3).

1 MARY

Mary had left home when the firm she worked for promoted her. She now had a flat on the other side of town. So she could walk to work every day. Jenny was her younger sister. She didn't really want to be left alone when their parents went on holiday. So she went to see Mary for the weekend. Mary didn't often get the chance to go home anymore. And she was sorry because she missed visiting Jenny. Jenny was still at school. She worked hard to finish all her homework so that she could relax on Saturday. Mary joined Jenny for breakfast. And she asked her to phone the theatre to see what was on. There were only matinee tickets left. So they decided not to go.

2 JAMES

James had only been at school for two years. But he was already looking forward to being able to leave. Andrew was in the same class. He had always liked going to school. He was big. So he could easily bully the other children in his class. Young James tried hard to please his teachers. But he never seemed to get very good marks. And he always seemed to be getting into trouble. Andrew was quite intelligent. So he usually managed to get good marks quite easily. Though he spent a lot of time making trouble. James started fighting Andrew. And he kicked him. The teacher sent them both in to see the headmistress.

3 JANE

Jane went to a big comprehensive school. She was well known there because she was very good at all kinds of sport. And she had a lot of friends there. Monica and Jane had known each other since they went to infant school together. They had been friends ever since. Though Monica had now moved to a different area. She was very popular in her school there. All of Jane's family were interested in sport. So she had encouragement from home. This was especially so when she played tennis. Monica also enjoyed playing sport. She was well known in her area as Jane's biggest rival. Jane often played against Monica. And she usually beat her. But it didn't make any difference to their friendship.

4 SARAH

Sarah had looked forward to leaving home and going to University for a long time. But unfortunately she wasn't very happy there. Her close friend Trish still lived at home. She had started a new job in the local hospital. Although she sometimes envied her friends she was finding her job very rewarding. Sarah was quite shy. She always found it difficult to make new friends. Superficially she seemed cheerful. But she often wondered whether she had made the right decision about her future. Trish didn't want an office job or to work in England. Eventually she intended to go to work abroad. But she wanted some experience at home first. Sarah went to see Trish. And she told her what had been happening to her. They had a lot to talk about.

5 SHAUN

It was beginning to get dark. And Shaun was starting to worry a bit. He knew they still had quite a long way to go before they got back to his minivan. But he was the only one who seemed concerned. Ben hadn't wanted to come on this walking trip. He'd let his friends persuade him because he was easy-going. And he hadn't planned anything else for that day. And he'd decided he needed the exercise. Shaun was quite used to walking in these hills. And he knew how easy it was to lose the path once it got dark. Ben wasn't aware of how late it was getting. He was engrossed in a conversation telling Shaun about meditation. But he suddenly stopped. He became aware that the path narrowed over a steep drop. Shaun led Ben along the path. And he called to him to be careful. They got safely across and the others followed.

6 MR BENTLEY

Mr Bentley was travelling to see his mother in Okehampton. He was driving his new car very carefully. He was worried about driving it on the narrow Devon lanes. A man had been following him for a long time. He was getting very impatient. He was trying to hurry to get to his friend's house for dinner. Mr Bentley was driving slowly. So he managed to stop the car in time when he came across a herd of cows blocking the road. He thought it was dangerous. So he got out of his car and stopped the man in the car behind. The car driver had left the office late. And he had underestimated how long it would take him to drive to his friend's house. So he thought he had better phone his friend to warn him that he would arrive late. Mr Bentley talked to the car driver. And he told him that they wouldn't be long. The cows only had to go into the next field.

7 HERBIE

Herbie was quite certain that his raid on the Drug Store would succeed. Unfortunately the owner was there and saw Herbie as he arrived. Although Herbie fired at him slightly wounding him he set off the alarm. Jack had joined the Police Force six months ago. Tonight he didn't feel well. He was looking forward to going off duty. And he didn't get on with the driver of his car. Herbie tried to get away quickly. He forced open the window leading to the side street where he had parked a minute ago. But he hurt his ankle as he jumped down. Jack jumped when he heard the alarm from the Drug Store. He leaped out of the car and ran over to the Store. And he shouted to his driver to cover him. Herbie saw the policeman. And he shot at him. But this time nobody was hurt.

8 DIANE

Diane was very keen on outdoor sports. She would have loved to go sailing. But she couldn't afford a boat or lessons while she was still at school. Nicola loved sailing. She was very pleased that her new house was close to several reservoirs. And she hoped her father would have more time to take her sailing now that he had a different job. Diane was pleased to see that her new neighbours had a sailing dinghy. She soon called round to see Nicola who was about her own age. Nicola was a bit apprehensive about going to a new school. But overall she was pleased to have moved house. Diane liked Nicola straight away. And she asked her if she enjoyed sailing. They arranged to go sailing that weeked.

9 MR ROBERTS

Mr Roberts didn't usually look forward to going away with his family. But this year he was unhappy and having problems at work. So he welcomed the break. Jonathan was really pleased. He was going to the seaside for the first time in his life. And he didn't have to go back to school for another six weeks. Mr Roberts spent most of the time on his own reading or walking when they went on holiday. But this year he spent much more time with his children Jonathan and Caroline. Jonathan definitely wanted to learn to swim. And to use his new surfboard which he'd just got for his birthday. Mr Roberts taught Jonathan how to make a kite. And he showed him how to make it fly properly. By the end of the holiday Mr Roberts felt much happier.

10 SIMON

Simon had just left school and started working as a trainee surveyor. But he wasn't enjoying it very much. He found the work difficult. And he found it hard to make his own decisions. Geoff hadn't been working in the office for very long. He was still cautious although he was finding the work a bit easier now. And he made an effort to get to

know the others in his office. Simon was determined not to appear unhappy. So he always made a great effort to tackle new jobs conscientiously. And he made an effort to seem cheerful and confident while he was at work. Geoff appeared to be an extrovert. He often played squash or went drinking with the others in the office. But this was because he felt shy and insecure not because he felt confident. Simon knew Geoff. And he envied him. But he had no reason to.

11 FIONA

Poor Fiona was fed up with feeling lonely and depressed at home. So she thought she would go for her favourite walk down by the river. Anna was feeling miserable. She had just broken off her engagement. And she was wondering whether she had done the right thing. Fiona was trying to decide who she could visit for a chat. Then she saw her friend Anna in the distance. Anna couldn't stand being with her over-symapthetic parents any longer. So she'd come out for a walk to think things over. Fiona waved at Anna. And she smiled at her. They were pleased to see each other and walked on together.

12 RORY

Rory the Alsatian was very fierce. In fact everyone said he was the most dangerous dog in the neighbourhood. Alfie the poodle was usually very friendly. He loved playing with the children in the park near his house. Rory belonged to a couple who were out at work all day. He often roamed the streets on his own. And he caused trouble by barking fiercely at everyone. Although he was usually docile Alfie hated some of the dogs in the area. And he sometimes picked fights with them. Rory met Alfie on the street one day. And he bit him. Then he ran away as quickly as he could.

Table A 6.2 One of the filler passages used in Experiment 10

1 MELANIE

Melanie was watching a film on television. In the middle her mother came in and asked her to go and buy some lemonade. Melanie didn't want to go but she didn't like to argue. The film was complicated so she asked her sister Gillian to watch what happened. Then she ran down to the shop at the corner of the road. She asked for some lemonade. But then she realised that she had forgotten her purse. She didn't want to go back for it. Luckily she knew the shop keeper quite well. He said she could pay him later. She ran back home. And she was annoyed to find that Gillian had switched the film off.

Questions	Correct answer
1 Melanie was reading a book.	False
2 The shop was at the corner of the road.	True
3 Gillian switched the film off.	True

Table A 6.3 Number of assignments to the subject and object for each passage by condition - Experiment 10

Passage	Assignment to:	Topic = Subject		Nontopic = Subject	
		Subject	Object	Subject	Object
1	MARY	5	1	5	1
2	JAMES	6	0	6	0
3	JANE	6	0	6	0
4	SARAH	5	1	5	1
5	SHAUN	5	1	5	1
6	MR BENTLEY	6	0	3	3
7	HERBIE	6	0	6	0
8	DIANE	3	3	5	1
9	MR ROBERTS	6	0	6	0
10	SIMON	5	1	5	1
11	FIONA	4	2	3	3
12	RORY	6	0	6	0
Overall mean		5.3	0.8	5.1	0.9

Table A 6.4 Summary tables for the analyses of variance of assignments by condition - Experiment 10

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	11	0.00			
Within readers	36	255.96			
T = S / NT = S	1	0.00	0.00		
Error (a)	11	0.00	0.00		
Assignment (S/O)	1	225.29	225.29	132.74	0.00
Error (b)	11	18.67	1.70		
T / NT = S x Assignment	1	0.34	0.34	0.32	0.59
Error (ab)	11	11.67	1.06		
Total		255.96			

Significant main effect of assignment (more to the subject than to the object).

F_2 Analysis by passages

Source	df	Sum of Squares	Mean Squares	F_2	p
Between passages	11	0.00			
Within passages	36	272.00			
T = S / NT = S	1	0.00	0.00		
Error (a)	11	0.00	0.00		
Assignment (S/O)	1	225.29	225.29	75.81	0.00
Error (b)	11	32.69	2.97		
T / NT = S x Assignment	1	0.33	0.33	0.27	0.62
Error (ab)	11	13.69	1.24		
Total		272.00			

Significant main effect of assignment (more to the subject than to the object).

Table A 6.5 Number of words in each clause (sentence) of the target sentences used in Experiment 10

Passage		Number of words in FIRST CLAUSE	Number of words in PRONOMINAL CLAUSE
1	MARY	5	13
2	JAMES	4	4
3	JANE	5	5
4	SARAH	5	10
5	SHAUN	6	8
6	MR BENTLEY	7	9
7	HERBIE	4	5
8	DIANE	5	8
9	MR ROBERTS	9	10
10	SIMON	3	4
11	FIONA	4	5
12	RORY	8	4
Range		3 - 9	4 - 13
Mean		5.42	7.17

Table A 6.6 Mean reading rates (words per second) for each passage by condition - Experiment 10

Passage	Clause	Topic = Subject First	Topic = Subject Pronominal	Nontopic = Subject First	Nontopic = Subject Pronominal
1	MARY	2.64	4.81	2.90	3.73
2	JAMES	2.43	2.35	2.84	4.24
3	JANE	3.17	3.28	3.38	2.79
4	SARAH	2.88	5.30	3.25	5.15
5	SHAUN	3.93	4.69	2.36	5.15
6	MR BENTLEY	4.14	4.84	4.13	3.82
7	HERBIE	3.27	3.81	3.24	2.86
8	DIANE	1.63	4.20	3.10	4.35
9	MR ROBERTS	3.31	5.38	3.50	4.43
10	SIMON	1.82	1.89	1.95	2.02
11	FIONA	3.74	4.08	3.36	3.84
12	RORY	4.78	2.75	4.65	2.93
Overall mean		3.15	3.95	3.22	3.78

Table A 6.7 Summary tables for the analyses of variance of reading rates by condition - Experiment 10

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	11	32.15			
Within readers	36	15.49			
T = S / NT = S	1	0.03	0.03	0.10	0.75
Error (a)	11	2.66	0.24		
Clause 1/2	1	5.49	5.49	21.91	0.0009
Error (b)	11	2.76	0.25		
T / NT = S x Clause	1	0.17	0.17	0.42	0.54
Error (ab)	11	4.38	0.40		
Total		47.64			

Significant main effect of clause type (pronominal clause read faster than first clause).

F_2 Analysis by passages

Source	df	Sum of Squares	Mean Squares	F_2	p
Between passages	23	39.30			
Clause 1/2	1	5.53	5.53	3.60	0.068
Error (a)	22	33.77	1.54		
Within passages	24	6.72			
T = S / NT = S	1	0.03	0.03	0.09	0.76
T / NT = S x Clause	1	0.19	0.19	0.63	0.56
Error (b)	22	6.51	0.30		
Total		46.02			

Marginally significant effect of clause type (pronominal clause read faster than first clause).

Table A 6.8 Mean reading rates (words per second) for each passage by condition and assignment - Experiment 10

		Topic = Subject				Nontopic = Subject			
Assignment to:		Subject		Object		Subject		Object	
Passage	Clause :	1	2	1	2	1	2	1	2
1	MARY	2.58	4.84	2.92	4.65	3.03	3.23	2.36	6.26
2	JAMES	2.43	2.35			2.84	4.24		
3	JANE	3.17	3.28			3.38	2.79		
4	SARAH	2.75	5.39	3.55	4.85	3.34	4.90	2.82	6.41
5	SHAUN	3.94	5.02	3.88	3.04	1.81	4.38	5.08	8.99
6	MR BENT.	4.14	4.84			3.97	4.27	4.28	3.38
7	HERBIE	3.27	3.81			3.24	2.86		
8	DIANE	1.53	4.46	1.74	3.93	2.81	3.85	4.54	6.83
9	MR ROB.	3.31	5.38			3.50	4.43		
10	SIMON	1.91	2.21	1.34	0.27	1.85	1.75	2.41	3.36
11	FIONA	4.19	4.67	2.85	3.20	3.72	3.92	3.00	3.77
12	RORY	4.78	2.75			4.65	2.93		
Overall mean		3.17	4.08	2.71	3.32	3.18	3.63	3.50	5.57

MR BENT. = MR BENTLEY
MR ROB. = MR ROBERTS

Clause 1 = First clause
Clause 2 = Pronominal clause

Table A 6.9 Summary tables for the analyses of variance of reading rates by condition, subject assignments only - Experiment 10

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	11	29.85			
Within readers	36	17.15			
T = S / NT = S	1	0.37	0.37	0.92	0.64
Error (a)	11	4.40	0.40		
Clause 1/2	1	4.56	4.56	20.65	0.001
Error (b)	11	2.43	0.22		
T / NT = S x Clause	1	0.21	0.21	0.44	0.53
Error (ab)	11	5.19	0.47		
Total		47.00			

Significant main effect of clause type (pronominal clause read faster than the first clause).

F_2 Analysis by passages

Source	df	Sum of Squares	Mean Squares	F_2	p
Between passages	23	39.88			
Clause 1/2	1	5.61	5.61	3.60	0.068
Error (a)	22	34.27	1.56		
Within passages	24	8.80			
T = S / NT = S	1	0.59	0.59	1.71	0.20
T / NT = S x Clause	1	0.65	0.65	1.89	0.18
Error (b)	22	7.57	0.34		
Total		48.68			

Marginally significant effect of clause type (pronominal clause read faster than the first clause).

Table A 6.10 Mean verification rates for each passage by response - Experiment 10

Passage		Response TRUE	FALSE
1	MARY	2.27	1.98
2	JAMES	4.25	2.41
3	JANE	4.92	3.96
4	SARAH	3.19	2.48
5	SHAUN	2.64	2.44
6	MR BENTLEY	2.46	2.08
7	HERBIE	2.56	4.51
8	DIANE	2.26	2.09
9	MR ROBERTS	2.22	3.19
10	SIMON	3.73	4.49
11	FIONA	1.93	2.28
12	RORY	2.79	4.25
Overall mean		2.94	3.01

Table A 6.11 Summary tables for the analyses of variance of verification rates by response - Experiment 10

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	11	5.26			
Within readers	12	4.13			
True / False	1	0.02	0.02	0.04	0.83
Error	11	4.12	0.37		
Total		9.39			

No significant effect.

F_2 Analysis by passages

Source	df	Sum of Squares	Mean Squares	F_2	p
Between passages	11	14.14			
Within passages	12	6.34			
True / False	1	0.04	0.04	0.06	0.80
Error	11	6.30	0.57		
Total		20.48			

No significant effect.

Table A 6.12 Mean verification rates for each passage by condition - Experiment 10

Passage		Topic = Subject	Nontopic = Subject
1	MARY	2.46	1.79
2	JAMES	2.91	3.75
3	JANE	4.58	4.29
4	SARAH	3.54	2.13
5	SHAUN	1.80	3.20
6	MR BENTLEY	2.45	2.15
7	HERBIE	3.66	3.41
8	DIANE	1.76	2.59
9	MR ROBERTS	3.25	2.15
10	SIMON	4.74	3.49
11	FIONA	2.29	1.97
12	RORY	2.86	4.18
Overall mean		3.03	2.93

Table A 6.13 Summary tables for the analyses of variance of verification rates by condition - Experiment 10

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	11	5.00			
Within readers	12	3.57			
T = S / NT = S	1	0.06	0.06	0.18	0.68
Error	11	3.51	0.32		
Total		8.56			

No significant effect.

F_2 Analysis by passages

Source	df	Sum of Squares	Mean Squares	F_2	p
Between passages	11	14.04			
Within passages	12	5.32			
T = S / NT = S	1	0.06	0.06	0.13	0.73
Error	11	5.26	0.48		
Total		19.36			

No significant effect.

Table A 6.14 Number of assignments to the subject and object for each sentence by condition - Experiment 11

Sentence	Assignment to:	'Topic' = Subject		'Nontopic' = Subject	
		Subject	Object	Subject	Object
1	MARY	4	2	6	0
2	JAMES	3	3	2	4
3	JANE	6	0	6	0
4	SARAH	5	1	5	1
5	SHAUN	6	0	6	0
6	MR BENTLEY	6	0	3	3
7	HERBIE	3	3	5	1
8	DIANE	6	0	6	0
9	MR ROBERTS	6	0	5	1
10	SIMON	6	0	6	0
11	FIONA	0	6	1	5
12	RORY	2	4	4	2
Overall mean		4.4	1.6	4.6	1.4

Table A 6.15 Summary tables for the analyses of variance of assignments by condition - Experiment 11

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	11	0.00			
Within readers	36	159.96			
'T' = S / 'NT' = S	1	0.00	0.00		
Error (a)	11	0.00	0.00		
Assignment (S/O)	1	107.97	107.97	31.25	0.0003
Error (b)	11	38.00	3.45		
'T'/'NT'=S x Assignment	1	0.33	0.33	0.27	0.62
Error (ab)	11	13.66	1.24		
Total		159.96			

Significant main effect of assignment (more to the subject than to the object).

F_2 Analysis by sentences

Source	df	Sum of Squares	Mean Squares	F_2	p
Between sentences	11	0.00			
Within sentences	36	263.94			
'T' = S / 'NT' = S	1	0.00	0.00		
Error (a)	11	0.00	0.00		
Assignment (S/O)	1	107.97	107.97	9.00	0.01
Error (b)	11	131.97	12.00		
'T'/'NT'=S x Assignment	1	0.34	0.34	0.16	0.70
Error (ab)	11	23.67	2.15		
Total		263.94			

Significant main effect of assignment (more to the subject than to the object).

Table A 6.16 Mean assignment rates (words per second) for each sentence by condition - Experiment 11

Sentence	Clause:	'Topic' = Subject First	'Topic' = Subject Pronominal	'Nontopic' = Subject First	'Nontopic' = Subject Pronominal
1	MARY	2.90	3.47	2.25	2.77
2	JAMES	2.03	1.25	2.70	1.85
3	JANE	2.84	2.62	2.43	2.40
4	SARAH	2.57	2.50	3.98	3.05
5	SHAUN	3.22	2.64	2.58	2.56
6	MR BENTLEY	3.39	2.20	3.33	2.88
7	HERBIE	2.96	1.78	2.54	1.40
8	DIANE	2.37	2.52	2.89	2.66
9	MR ROBERTS	4.52	3.84	3.64	4.85
10	SIMON	2.23	1.81	1.93	2.09
11	FIONA	2.72	2.31	1.83	2.14
12	RORY	3.29	1.14	5.42	1.77
Overall mean		2.92	2.34	2.96	2.54

Table A 6.17 Summary tables for the analyses of variance of assignment rates by condition - Experiment 11

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	11	39.31			
Within readers	36	27.94			
'T' = S / 'NT' = S	1	0.15	0.15	1.03	0.33
Error (a)	11	1.63	0.15		
Clause 1/2	1	2.96	2.96	1.92	0.19
Error (b)	11	16.97	1.54		
'T' / 'NT' = S x Clause	1	0.07	0.07	0.12	0.74
Error (ab)	11	6.17	0.56		
Total		67.24			

No significant effects.

F_2 Analysis by sentences

Source	df	Sum of Squares	Mean Squares	F_2	p
Between sentences	23	29.03			
Clause 1/2	1	3.03	3.03	2.67	0.11
Error (a)	22	25.00	1.14		
Within sentences	24	6.72			
'T' = S / 'NT' = S	1	0.17	0.17	0.56	0.53
'T' / 'NT' = S x Clause	1	0.07	0.07	0.24	0.63
Error (b)	22	6.48	0.29		
Total		34.75			

No significant effects.

Table A 6.18 Mean assignment rates (words per second) for each sentence by condition and assignment - Experiment 11

		'Topic' = Subject				'Nontopic' = Subject			
Assignment to:		Subject		Object		Subject		Object	
Clause:		1	2	1	2	1	2	1	2
Sentence									
1	MARY	2.76	2.51	3.18	5.40	2.25	2.77		
2	JAMES	2.03	1.30	2.03	1.21	1.89	2.60	3.10	1.48
3	JANE	2.84	2.63			2.43	2.40		
4	SARAH	2.66	2.58	2.10	2.12	4.18	3.26	2.97	2.03
5	SHAUN	3.22	2.64			2.58	2.56		
6	MR BENT.	3.39	2.20			3.47	3.42	3.18	2.34
7	HERBIE	3.38	2.49	2.55	1.08	2.79	1.46	1.28	1.10
8	DIANE	2.38	2.52			2.89	2.66		
9	MR ROB.	4.52	3.84			3.79	5.43	2.87	1.92
10	SIMON	2.23	1.81			1.93	2.09		
11	FIONA	1.23*	0.74*	2.72	2.31	1.13	0.96	1.98	2.38
12	RORY	3.46	1.34	3.22	1.01	6.23	1.89	3.80	1.55
Overall mean		2.84	2.22	2.63	2.19	2.96	2.63	2.74	1.83

MR BENT. = MR BENTLEY
MR ROB. = MR ROBERTS

* Mean calculated using Winer's formula

Clause 1 = First clause
Clause 2 = Pronominal clause

Table A 6.19 Summary tables for the analyses of variance of assignment rates by condition, subject assignments only - Experiment 11

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	11	49.51			
Within readers	36	35.01			
'T' = S / 'NT' = S	1	0.00	0.00	0.003	0.96
Error (a)	11	2.30	0.21		
Clause 1/2	1	2.51	2.51	1.42	0.26
Error (b)	11	19.51	1.77		
'T' / 'NT' = S x Clause	1	0.13	0.13	0.14	0.72
Error (ab)	11	10.56	0.96		
Total		84.52			

No significant effects.

F_2 Analysis by sentences

Source	df	Sum of Squares	Mean Squares	F_2	p
Between sentences	23	42.65			
Clause 1/2	1	2.78	2.78	1.54	0.23
Error (a)	22	39.87	1.81		
Within sentences	22*	9.95			
'T' = S / 'NT' = S	1	0.84	0.84	2.09	0.16
'T' / 'NT' = S x Clause	1	0.25	0.25	0.61	0.55
Error (b)	20*	8.86	0.40		
Total		52.60			

No significant effects.

* Degrees of freedom adjusted to take account of use of Winer's formula.

Table A 6.20 Mean reading rates (words per second) for each sentence by condition - Experiment 12

Sentence	Clause:	'Topic' = Subject First	'Topic' = Subject Pronominal	'Nontopic' = Subject First	'Nontopic' = Subject Pronominal
1	MARY	2.87	5.51	2.45	4.95
2	JAMES	2.50	2.97	2.79	4.08
3	JANE	2.72	4.03	2.95	3.39
4	SARAH	3.20	4.41	3.17	5.60
5	SHAUN	4.02	4.95	3.69	4.08
6	MR BENTLEY	4.24	4.57	4.39	4.73
7	HERBIE	3.68	5.07	2.55	3.30
8	DIANE	2.71	3.97	2.67	4.23
9	MR ROBERTS	5.04	5.30	5.04	4.65
10	SIMON	2.28	3.03	2.45	3.79
11	FIONA	3.42	5.86	2.63	3.13
12	RORY	4.03	3.43	5.36	3.83
Overall mean		3.39	4.43	3.35	4.15

Table A 6.21 Summary tables for the analyses of variance of reading rates by condition - Experiment 12

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	11	82.37			
Within readers	36	22.13			
'T' = S / 'NT' = S	1	0.37	0.37	1.05	0.33
Error (a)	11	3.85	0.35		
Clause 1/2	1	10.36	10.36	18.29	0.002
Error (b)	11	6.23	0.57		
'T' / 'NT' = S x Clause	1	0.13	0.13	1.16	0.31
Error (ab)	11	1.20	0.11		
Total		104.50			

Significant main effect of clause type (pronominal clause read faster than the first clause).

F_2 Analysis by sentences

Source	df	Sum of Squares	Mean Squares	F_2	p
Between sentences	23	35.98			
Clause 1/2	1	10.09	10.09	8.58	0.008
Error (a)	22	25.89	1.18		
Within sentences	24	10.06			
'T' = S / 'NT' = S	1	0.32	0.32	0.73	0.59
'T' / 'NT' = S x Clause	1	0.16	0.16	0.37	0.56
Error (b)	22	9.58	0.44		
Total		46.04			

Significant main effect of clause type (pronominal clause read faster than first clause).

Table A 6.22 Mean reading rates (words per second) for each passage by condition - Experiment 13

	Pronoun referred to							
	Topic				Nontopic			
	Subject		Object		Subject		Object	
Clause: Passage	1	2	1	2	1	2	1	2
1 MARY	3.71	6.82	3.86	6.00	2.93	6.49	4.15	6.40
2 JAMES	3.00	4.61	3.18	3.87	2.71	2.95	2.80	3.31
3 CARL	4.53	5.33	3.59	4.07	4.23	4.21	3.62	3.80
4 SARAH	4.46	5.21	4.25	5.32	4.59	6.11	4.18	4.57
5 CLARE	4.05	5.32	4.16	4.94	3.82	5.27	4.74	6.54
6 MR BENT.	5.17	5.68	4.40	2.69	4.73	2.07	4.77	3.99
7 HERB	3.11	5.06	3.30	4.69	2.47	4.80	3.19	3.02
8 COLIN	2.87	4.69	4.44	5.85	3.24	6.60	3.90	4.46
9 MR ROB.	5.27	3.86	3.95	5.18	3.73	5.68	4.41	5.39
10 PENNY	2.71	3.83	3.21	2.56	2.13	3.20	2.19	2.47
11 FIONA	2.40	4.42	3.56	4.52	4.29	6.36	3.79	5.62
12 RORY	4.89	4.43	5.82	4.98	5.54	4.80	5.89	3.99
Overall mean	3.85	4.94	3.98	4.56	3.70	4.88	3.97	4.46

MR BENT. = MR BENTLEY
MR ROB. = MR ROBERTS

Table A 6.23 Summary tables for the analyses of variance of reading rates by condition - Experiment 13

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	23	186.56			
Within readers	168	243.98			
Pronoun = T/NT	1	0.39	0.39	0.17	0.69
Error (a)	23	53.30	2.32		
Pronoun = S/O	1	0.41	0.41	0.42	0.53
Error (b)	23	22.58	0.98		
Clause 1/2	1	34.06	34.06	38.84	0.00
Error (c)	23	20.17	0.88		
Pronoun = T/NT x S/O	1	0.02	0.02	0.008	0.93
Error (ab)	23	51.30	2.23		
Pronoun = T/NT x Clause	1	0.001	0.001	0.002	0.96
Error (ac)	23	15.78	0.69		
Pronoun = S/O x Clause	1	3.90	3.90	3.59	0.07
Error (bc)	23	24.99	1.09		
Pron = T/NT x S/O x Clse	1	0.15	0.15	0.20	0.66
Error (abc)	23	16.93	0.74		
Total		430.54			

Significant main effect of clause type (pronominal clause read faster than the first clause) and marginal interaction between pronoun referring to the subject or object and clause type.

Table A 6.23 continued

F_2 Analysis by passages

Source	df	Sum of Squares	Mean Squares	F_2	p
Between passages	23	88.51			
Clause 1/2	1	16.75	16.75	5.14	0.03
Error (a)	22	71.76	3.26		
Within passages	72	34.56			
Pronoun = T/NT	1	0.14	0.14	0.29	0.60
Pronoun = T/NT x Clause	1	0.00	0.00	0.00	0.99
Error (b)	22	10.64	0.48		
Pronoun = S/O	1	0.24	0.24	0.87	0.64
Pronoun = S/O x Clause	1	2.14	2.14	7.77	0.01
Error (c)	22	6.07	0.28		
Pronoun = T/NT x S/O	1	0.02	0.02	0.02	0.87
Pron = T/NT x S/O x Clse	1	0.04	0.04	0.06	0.80
Error (bc)	22	15.56	0.69		
Total		123.07			

Significant main effect of clause type (pronominal clause read faster than the first clause) and significant interaction between pronoun referring to the subject or object and clause type.

Table A 6.24 Mean reading rates (words per second) for each passage by accuracy of response - Experiment 13

Passages which did not produce both correct and incorrect responses were excluded.

		Response accuracy			
		Correct		Incorrect	
	Clause:	First	Pronominal	First	Pronominal
Passage					
1	MARY	3.72	6.69	3.79	7.14
2	JAMES	3.14	3.87	3.05	4.21
3	CARL	4.26	4.44	4.04	6.11
4	SARAH	5.03	5.68	3.96	4.68
5	CLARE	4.47	5.97	3.64	3.94
6	MR BENTLEY	4.87	4.38	4.78	2.05
7	HERB	2.90	4.32	4.12	6.49
8	COLIN	3.89	5.80	3.57	3.86
9	MR ROBERTS	4.05	4.86	5.77	6.88
12	RORY	3.55	5.83	4.93	5.43
Overall mean		3.99	5.18	4.17	5.08

Table A 6.25 Summary tables for the analyses of variance of reading rates by accuracy of response - Experiment 13

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	18	96.85			
Within readers	57	105.94			
Correct/Incorrect	1	0.17	0.17	0.09	0.76
Error (a)	18	34.05	1.89		
Clause 1/2	1	15.13	15.13	11.64	0.003
Error (b)	18	23.40	1.30		
Correct/Incorrect x Clse	1	1.61	1.61	0.92	0.65
Error (ab)	18	31.60	1.76		
Total		202.80			

Significant main effect of clause type (pronominal clause read faster than the first clause).

F_2 Analysis by passages

Source	df	Sum of Squares	Mean Squares	F_2	p
Between passages	19	35.19			
Clause 1/2	1	11.13	11.13	8.33	0.01
Error (a)	18	24.06	1.34		
Within passages	20	17.36			
Correct/Incorrect	1	0.01	0.01	0.01	0.90
Correct/Incorrect x Clse	1	0.20	0.20	0.21	0.66
Error (b)	18	17.15	0.95		
Total		52.55			

Significant main effect of clause type (pronominal clause read faster than the first clause).

Table A 6.26 Mean verification rates for each passage by condition - Experiment 13

Passage		Pronoun referred to: Topic Subject	Topic Object	Nontopic Subject	Nontopic Object
1	MARY	4.64	4.18	3.93	5.17
2	JAMES	5.03	4.66	3.80	3.18
3	CARL	5.75	4.28	5.36	4.39
4	SARAH	4.23	3.43	4.36	3.54
5	CLARE	4.02	3.26	5.27	4.31
6	MR BENTLEY	3.50	3.64	2.94	3.32
7	HERB	5.16	3.70	3.88	3.54
8	COLIN	3.40	4.20	4.36	2.90
9	MR ROBERTS	4.04	2.11	2.74	3.07
10	PENNY	5.64	4.14	4.74	4.70
11	FIONA	5.45	3.64	3.98	4.03
12	RORY	6.05	4.55	8.00	5.27
Overall mean		4.74	3.82	4.45	3.95

Table A 6.27 Summary tables for the analyses of variance of verification rates by condition - Experiment 13

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	23	60.75			
Within readers	72	83.19			
Pronoun = T/NT	1	0.00	0.00	0.00	0.99
Error (a)	23	30.88	1.34		
Pronoun = S/O	1	10.94	10.94	15.43	0.001
Error (b)	23	16.31	0.71		
Pronoun = T/NT x S/O	1	2.16	2.16	2.17	0.15
Error (ab)	23	22.90	1.00		
Total		143.94			

Significant main effect of pronoun referring to the subject or object (question verified more quickly when pronoun referred to the subject).

F_2 Analysis by passages

Source	df	Sum of Squares	Mean Squares	F_2	p
Between passages	11	26.59			
Within passages	36	22.30			
Pronoun = T/NT	1	0.08	0.08	0.14	0.71
Error (a)	11	6.01	0.55		
Pronoun = S/O	1	6.06	6.06	14.24	0.003
Error (b)	11	4.68	0.43		
Pronoun = T/NT x S/O	1	0.56	0.56	1.25	0.29
Error (ab)	11	4.91	0.45		
Total		48.89			

Significant main effect of pronoun referring to the subject or object (question verified more quickly when the pronoun referred to the subject).

Table A 6.28 Mean reading rates (words per second) for each sentence by condition - Experiment 14

		Pronoun referred to 'Topic' Subject		'Topic' Object		'Nontopic' Subject		'Nontopic' Object	
Sentence	Clause:	1	2	1	2	1	2	1	2
1	MARY	4.06	6.84	3.54	5.86	3.31	5.22	3.12	5.28
2	JAMES	2.24	2.40	3.18	3.88	3.03	3.17	2.28	3.14
3	CARL	3.09	3.39	2.62	3.08	3.86	4.91	2.91	3.56
4	SARAH	3.91	5.53	3.28	4.38	3.55	5.10	3.79	6.31
5	CLARE	4.55	5.94	3.82	4.77	4.20	5.21	4.14	4.15
6	MR BENT.	3.57	4.57	5.21	5.47	4.06	5.36	4.31	4.70
7	HERB	2.76	3.08	2.90	3.66	3.27	4.31	2.98	4.34
8	COLIN	3.27	4.79	3.31	4.10	3.27	4.23	3.84	5.33
9	MR ROB.	5.00	5.61	5.04	5.30	4.62	4.79	4.91	4.32
10	PENNY	2.48	3.51	2.84	3.85	2.68	3.33	2.64	3.07
11	FIONA	3.38	4.28	2.93	3.39	3.47	5.34	3.19	3.72
12	RORY	4.21	2.94	5.96	3.61	4.50	2.57	5.64	3.69
Overall mean		3.54	4.41	3.72	4.28	3.65	4.46	3.65	4.30

MR BENT. = MR BENTLEY
MR ROB. = MR ROBERTS

Table A 6.29 Summary tables for the analyses of variance of reading rates by condition - Experiment 14

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	23	388.68			
Within readers	168	142.83			
Pronoun = 'T'/'NT'	1	0.01	0.01	0.01	0.92
Error (a)	23	28.87	1.26		
Pronoun = S/O	1	0.03	0.03	0.05	0.82
Error (b)	23	13.51	0.59		
Clause 1/2	1	24.67	24.67	21.97	0.0002
Error (c)	23	25.84	1.12		
Pronoun = 'T'/'NT' x S/O	1	0.11	0.11	0.07	0.78
Error (ab)	23	34.89	1.52		
Pron = 'T'/'NT' x Clause	1	0.00	0.00	0.003	0.96
Error (ac)	23	6.10	0.27		
Pron = S/O x Clause	1	0.50	0.50	2.01	0.17
Error (bc)	23	5.69	0.25		
P = 'T'/'NT' x S/O x Clse	1	0.12	0.12	1.08	0.31
Error (abc)	23	2.50	0.11		
Total		531.51			

Significant main effect of clause type (pronominal clause read faster than first clause).

Table A 6.29 continued

F_2 Analysis by sentences

Source	df	Sum of Squares	Mean Squares	F_2	p
Between sentences	23	75.96			
Clause 1/2	1	12.51	12.51	4.34	0.047
Error (a)	22	63.45	2.88		
Within sentences	72	22.30			
Pronoun = 'T'/'NT'	1	0.02	0.02	0.06	0.80
Pron = 'T'/'NT' x Clause	1	0.003	0.003	0.01	0.92
Error (b)	22	6.70	0.30		
Pronoun = S/O	1	0.02	0.02	0.05	0.82
Pronoun = S/O x Clause	1	0.32	0.32	0.76	0.60
Error (c)	22	9.11	0.41		
Pronoun = 'T'/'NT x S/O	1	0.07	0.07	0.25	0.63
P = 'T'/'NT' x S/O x Clse	1	0.03	0.03	0.12	0.73
Error (bc)	22	6.02	0.27		
Total		98.26			

Significant main effect of clause type (pronominal clause read faster than the first clause).

Table A 6.30 Mean verification rates for each passage by assignment - Experiment 10

Passage		Assignment to Subject	Assignment to Object
1	MARY	2.27	1.39
4	SARAH	2.95	2.27
5	SHAUN	2.60	2.01
6	MR BENTLEY	2.38	2.04
8	DIANE	2.70	1.12
10	SIMON	4.07	4.31
11	FIONA	2.52	1.58
Overall mean		2.78	2.10

Passages which did not have assignments to both the subject and the object were excluded.

Table A 6.31 Summary tables for the analyses of variance of verification rates by assignment - Experiment 10

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	9	3.25			
Within readers	10	17.61			
Assignment (S/O)	1	9.80	9.80	11.30	0.008
Error	9	7.81	0.87		
Total		20.86			

Significant main effect of assignment (faster verification rates when assignment was to the subject rather than the object).

F_2 Analysis by passages

Source	df	Sum of Squares	Mean Squares	F_2	p
Between passages	6	7.94			
Within passages	7	2.57			
Assignment (S/O)	1	1.63	1.63	10.33	0.018
Error	6	0.94	0.16		
Total		10.50			

Significant main effect of assignment (faster verification rates when assignment was to the subject rather than the object).

Table A 6.32 Mean assignment rates by condition, object assignments only - Experiment 11

	Clause		
	FIRST	PRONOMINAL	$\bar{x}$
'T' = S	2.68	1.99	2.34
'NT' = S	2.79	2.12	2.46
$\bar{x}$	2.74	2.06	

Table A 7.1 Frequency with which subject and object mentioned first in each passage by condition - Experiment 15

First mentioned: Passage		Topic = Subject		Nontopic = Subject	
		Subject	Object	Subject	Object
1	MARY	7	13	9	9
2	JAMES	11	8	11	10
3	CARL	13	0	9	3
4	SARAH	15	2	15	3
5	CLARE	14	4	15	1
6	MR BENTLEY	15	4	19	0
7	HERB	22	0	19	2
8	COLIN	10	6	12	3
9	MR ROBERTS	14	6	3	10
10	PENNY	16	2	19	2
11	FIONA	14	4	10	5
12	RORY	12	6	17	4
Mean		13.6	4.6	13.2	4.3

Table A 7.2 Frequency with which different reference terms used to refer to ambiguous, both, other and unintelligible referents, by condition - Experiment 15

Reference term	Referent: Ambiguous	Both	Other	Unintelligible
T = S				
Ellipsis	-	2	-	2
Pronoun	0	34	0	0
Name	-	5	3	0
NT = S				
Ellipsis	-	3	-	2
Pronoun	1	38	0	1
Name	-	8	1	0
Total	1	90	4	5

Table A 7.3 Frequency with which each reference term was used to refer to the subject and object in each passage by condition - Experiment 15

	Topic = Subject						Nontopic = Subject					
Referent:	Subject			Object			Subject			Object		
Ref. term:	E	P	N	E	P	N	E	P	N	E	P	N
Passage												
1 MARY *	0	5	2	0	10	3	0	9	0	0	2	7
2 JAMES	5	1	5	0	6	2	6	3	2	0	6	4
3 CARL	9	4	0	0	0	0	5	3	1	0	0	3
4 SARAH	12	2	1	0	2	0	11	4	0	0	1	2
5 CLARE	11	2	1	0	2	2	11	3	1	0	0	1
6 MR BENT.	13	2	0	0	4	0	18	1	0	0	0	0
7 HERB	16	6	0	0	0	0	16	3	0	0	1	1
8 COLIN	6	4	0	0	2	4	7	5	0	0	1	2
9 MR ROB.	12	2	0	0	4	2	1	1	1	0	5	5
10 PENNY	12	2	2	0	2	0	13	6	0	0	1	1
11 FIONA	14	0	0	0	4	0	9	1	0	0	2	3
12 RORY	6	2	4	0	2	4	9	8	0	0	0	4
Mean	9.7	2.7	1.3	0.0	3.2	1.4	8.8	3.9	0.4	0.0	1.6	2.8

* The lack of ellipsis in this passage is due to the conjunction 'when' at the end of the fragment.

MR BENT. = MR BENTLEY
MR ROB. = MR ROBERTS

E = Ellipsis
P = Pronoun
N = Name

Table A 7.4 Summary table for the analysis of variance of the number of elliptical, pronominal and nominal references to the subject by condition - Experiment 15

F_2 Analysis by passages

Source	df	Sum of Squares	Mean Squares	F_2	p
Between passages	10	84.03			
Within passages	55	1449.50			
T = S / NT = S	1	0.74	0.74	0.21	0.66
Error (a)	10	35.42	3.54		
Ellip / Pro / Name	2	1037.48	518.74	40.13	0.000
Error (b)	20	258.52	12.93		
T/NT=S x Ellip/Pro/Name	2	12.21	6.11	1.16	0.33
Error (ab)	20	105.12	5.26		
Total		1533.53			

Significant main effect or reference term (ellipsis, pronoun or name).

Table A 7.5 Summary table for the analysis of variance of the use of pronouns and names to refer to the subject and object by condition - Experiment 15

F_2 Analysis by passages

Source	df	Sum of Squares	Mean Squares	F_2	p
Between passages	11	115.46			
Within passages	84	344.50			
T = S / NT = S	1	0.04	0.04	0.05	0.82
Error (a)	11	9.46	0.86		
Subject / Object ref.	1	0.67	0.67	0.14	0.72
Error (b)	11	52.83	4.80		
Pronoun / Name	1	45.38	45.38	27.00	0.0005
Error (c)	11	19.13	1.74		
T/NT=S x Subj/Obj	1	0.67	0.67	0.39	0.55
Error (ab)	11	18.83	1.71		
T/NT=S x Pron/Name	1	1.04	1.04	0.43	0.53
Error (ac)	11	26.46	2.41		
Subj/Obj x Pron/Name	1	28.17	28.17	5.40	0.039
Error (bc)	11	57.33	5.21		
T/NT=S x S/O x Pro/Name	1	37.50	37.50	8.78	0.013
Error (abc)	11	47.00	4.27		
Total		459.96			

Significant main effect of reference term (more pronominal than nominal references), significant two way interaction between the use of pronouns and names and reference to the subject and object and significant three way interaction between the use of pronouns and names, reference to the subject and object and condition (T = S or NT = S).

Table A 7.6 Summary tables for the tests of simple interaction effects: analyses of the use of pronouns and names to refer to the subject and object for T = S and for NT = S separately - Experiment 15

T = S

F_2 Analysis by passages

Source	df	Sum of Squares	Mean Squares	F_2	p
Between passages	11	62.75			
Within passages	36	146.50			
Subject / Object ref.	1	1.33	1.33	0.44	0.53
Error (a)	11	33.17	3.02		
Pronoun / Name	1	30.08	30.08	9.90	0.009
Error (b)	11	33.42	3.04		
Subj/Obj x Pron/Name	1	0.33	0.33	0.08	0.78
Error (ab)	11	48.17	4.38		
Total		209.25			

Significant main effect of reference term (more pronominal than nominal references).

NT = S

F_2 Analysis by passages

Source	df	Sum of Squares	Mean Squares	F_2	p
Between passages	11	62.17			
Within passages	36	188.50			
Subject / Object ref.	1	0.00	0.00	0.00	1.00
Error (a)	11	38.50	3.50		
Pronoun / Name	1	16.33	16.33	14.77	0.003
Error (b)	11	12.17	1.11		
Subj/Obj x Pron/Name	1	65.33	65.33	12.80	0.005
Error (ab)	11	56.17	5.11		
Total		250.67			

Significant main effect of reference term (more pronominal than nominal references) and significant interaction between use of pronouns and names and reference to the subject and object.

Table A 7.7 One of the filler passages used in Experiment 16

MALCOLM

Malcolm was deep in thought when he suddenly became aware of someone standing behind him. He was surprised because he always felt completely alone in the sunhouse at the bottom of the garden. He spun round quickly and was even more surprised to see who it was standing there. It was his sister Kim whom he hadn't seen for over ten years. Malcolm looked at Kim and

(In this example, the subject of the fragment is male and the fragment ends with "and".)

Table A 7.8 Frequency with which subject and object mentioned first in each passage by condition - Experiment 16

	Fragment ending:	Topic = Subject				Nontopic = Subject			
		"and"		"and he"		"and"		"and he"	
	First mentioned:	S	O	S	O	S	O	S	O
	Passage								
1	MARY	4	6	7	7	7	3	9	3
2	JAMES	11	2	13	0	7	6	14	0
3	JANE	6	0	14	0	2	1	13	1
4	SARAH	11	0	12	2	8	2	13	1
5	SHAUN	10	3	12	1	8	1	13	0
6	MR BENTLEY	11	3	10	3	12	0	13	0
7	HERBIE	14	0	14	0	12	1	13	1
8	DIANE	5	4	13	0	9	1	14	0
9	MR ROBERTS	5	2	13	0	2	5	9	1
10	SIMON	10	0	12	0	10	0	13	1
11	FIONA	9	2	9	2	7	3	11	2
12	RORY	8	3	12	0	8	1	13	0
Mean		8.7	2.1	11.8	1.3	7.7	2.0	12.3	0.8

S = Subject
O = Object

Table A 7.9 Frequency of ambiguous, both, other and unintelligible references by condition - Experiment 16

	T = S		NT = S		
Referent	'and'	'pron'	'and'	'pron'	Total
Ambiguous	0	11	2	10	23
Both	33	-	42	-	75
Other	6	-	6	-	12
Unintelligible	0	1	2	0	3

Table A 7.10 Summary tables for the analyses of variance of the number of completions where subject mentioned first by condition - Experiment 16

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	55	44.14			
Within readers	168	134.75			
T = S / NT = S	1	0.11	0.11	0.18	0.68
Error (a)	55	34.14	0.62		
Ending (and/pron)	1	38.61	38.61	61.31	0.00
Error (b)	55	34.64	0.63		
T / NT = S x Ending	1	1.61	1.61	3.46	0.06
Error (ab)	55	25.64	0.47		
Total		178.89			

Significant main effect of ending (more subject completions when there was a pronoun at the end of the fragment than when there was no pronoun) and marginal interaction between the subject of the sentence and the ending.

F_2 Analysis by passages

Source	df	Sum of Squares	Mean Squares	F_2	p
Between passages	11	152.73			
Within passages	36	331.75			
T = S / NT = S	1	0.52	0.52	0.14	0.71
Error (a)	11	40.73	3.70		
Ending (and/pron)	1	180.19	180.19	22.77	0.00
Error (b)	11	87.06	7.91		
T / NT = S x Ending	1	7.52	7.52	5.26	0.04
Error (ab)	11	15.73	1.43		
Total		484.48			

Significant main effect of ending (more subject completions when there was a pronoun at the end of the fragment than when there was no pronoun) and significant interaction between the subject of the sentence and the ending.

Table A 7.11 Frequency with which each reference term was used to refer to the subject and object in each passage by condition - Experiment 16

		Topic = Subject						Nontopic = Subject					
	Referent:	Subject			Object			Subject			Object		
	Ref. term:	E	P	N	E	P	N	E	P	N	E	P	N
Passage													
1	MARY *	0	3	1	0	3	3	0	5	2	0	1	2
2	JAMES	8	0	3	0	0	2	4	1	2	0	0	6
3	JANE	3	1	2	0	0	0	1	1	0	0	0	1
4	SARAH	11	0	0	0	0	0	7	1	0	0	0	2
5	SHAUN	9	1	0	0	0	3	7	1	0	0	0	1
6	MR BENTLEY	9	1	1	0	0	3	12	0	0	0	0	0
7	HERBIE	13	1	0	0	0	0	11	1	0	0	0	1
8	DIANE	5	0	0	0	0	4	8	0	1	0	0	1
9	MR ROBERTS	4	1	0	0	1	1	0	1	1	0	0	5
10	SIMON	9	0	1	0	0	0	8	1	1	0	0	0
11	FIONA	9	0	0	0	0	2	7	0	0	0	0	3
12	RORY	6	0	2	0	0	3	5	1	2	0	0	1
Mean		7.2	0.7	0.8	0.0	0.3	1.8	5.8	1.1	0.8	0.0	0.1	1.9

* The lack of ellipsis in this passage is due to the conjunction 'when' at the end of the fragment.

E = Ellipsis
P = Pronoun
N = Name

Table A 7.12 Frequency with which different reference terms used to refer to ambiguous, both, other and unintelligible referents ('and' condition only) - Experiment 16

Reference term	Referent: Ambiguous	Both	Other	Unintelligible
T = S				
Ellipsis	-	0	-	0
Pronoun	0	26	0	0
Name	-	7	6	0
NT = S				
Ellipsis	-	0	-	2
Pronoun	2	35	0	0
Name	-	7	6	0
Total	2	75	12	2

Table A 7.13 Summary table for the analysis of variance of the number of elliptical, pronominal and nominal references to the subject by condition - Experiment 16

F_2 Analysis by passages

Source	df	Sum of Squares	Mean Squares	F_2	p
Between passages	10	53.94			
Within passages	55	816.50			
T = S / NT = S	1	3.41	3.41	3.49	0.089
Error (a)	10	9.76	0.98		
Ellip / Pro / Name	2	606.94	303.47	37.68	0.000
Error (b)	20	161.06	8.05		
T/NT=S x Ellip/Pro/Name	2	8.82	4.41	3.33	0.055
Error (ab)	20	26.52	1.33		
Total		870.44			

Significant main effect of reference term (ellipsis, pronoun or name), marginal main effect of whether topic or nontopic was subject of sentence and marginal interaction between whether topic or nontopic was subject and reference term.

Table A 7.14 Frequency with which the subject and object mentioned first in each sentence - Experiment 17

Sentence		First mentioned: SUBJECT	First mentioned: OBJECT
1	MARY	6	11
2	JAMES	15	5
3	CARL	17	3
4	SARAH	12	4
5	CLARE	13	4
6	MR BENTLEY	19	1
7	HERB	18	2
8	COLIN	14	4
9	MR ROBERTS	7	11
10	PENNY	15	2
11	FIONA	8	11
12	RORY	14	2
Mean		13.2	5.0

Table A 7.15 Frequency with which different reference terms used to refer to ambiguous, both, other and unintelligible referents - Experiment 17

Reference term	Referent: Ambiguous	Both	Other	Unintelligible
Ellipsis	-	1	-	0
Pronoun	0	17	1	0
Name	-	0	3	0
Total	0	18	4	0

Table A 7.16 Frequency with which each reference term was used to refer to the subject and object in each sentence - Experiment 17

Sentence	Reference term:	Referent: SUBJECT E	SUBJECT P	SUBJECT N	OBJECT E	OBJECT P	OBJECT N
1	MARY *	0	5	1	-	4	7
2	JAMES	4	8	3	-	1	4
3	CARL	5	8	4	-	1	2
4	SARAH	6	4	2	-	2	2
5	CLARE	10	3	0	-	1	3
6	MR BENTLEY	10	9	0	-	0	1
7	HERB	10	7	1	-	1	1
8	COLIN	6	6	2	-	1	3
9	MR ROBERTS	6	0	1	-	5	6
10	PENNY	5	7	3	-	0	2
11	FIONA	5	2	1	-	6	5
12	RORY	7	6	1	-	0	2
Mean		6.2	5.4	1.6	-	1.8	3.2

* The lack of ellipsis in this passage is due to the conjunction 'when' at the end of the fragment.

E = Ellipsis
P = Pronoun
N = Name

Table A 7.17 Summary tables for the analyses of variance of reference terms used to refer to the subject - Experiment 17

F_1 Analysis by readers

Use of ellipsis and pronouns

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	19	61.48			
Within readers	20	162.50			
Ellipsis/Pronoun	1	2.03	2.03	0.24	0.63
Error	19	160.48	8.45		
Total		223.98			

No significant effect.

F_1 Analysis by sentences

Use of ellipsis, pronouns and names

Source	df	Sum of Squares	Mean Squares	F_2	p
Between sentences	11	65.89			
Within sentences	24	268.67			
Ellip/Pron/Name	2	145.06	72.53	12.91	0.0004
Error	22	123.61	5.62		
Total		334.56			

Significant main effect of reference term (names used less frequently than ellipsis or pronouns).

Table A 7.18 Summary table for the analysis of variance of the use of pronouns and names to refer to the subject and object - Experiment 17

F_2 Analysis by sentences

Source	df	Sum of Squares	Mean Squares	F_2	p
Between sentences	11	25.00			
Within sentences	36	271.00			
Subject / Object ref.	1	12.00	12.00	1.13	0.31
Error (a)	11	117.00	10.64		
Pronoun / Name	1	18.75	18.75	11.96	0.005
Error (b)	11	17.25	1.57		
Subj/Obj x Pron/Name	1	80.08	80.08	33.99	0.000
Error (ab)	11	25.92	2.36		
Total		296.00			

Significant main effect of reference term (more pronminal than nominal references) and significant interaction between the use of pronouns and names and reference to the subject and object.

Table A 7.19 Frequency with which the subject and object were mentioned first in each sentence by condition - Experiment 18

		Condition			
		'and'		'pron'	
Sentence	First mentioned:	Subject	Object	Subject	Object
1	MARY	1	9	10	6
2	JAMES	5	5	10	2
3	JANE	10	6	9	0
4	SARAH	14	1	13	2
5	SHAUN	8	8	12	5
6	MR BENTLEY	15	2	11	2
7	HERBIE	17	3	19	0
8	DIANE	13	3	18	1
9	MR ROBERTS	7	12	14	5
10	SIMON	18	1	19	1
11	FIONA	6	13	6	8
12	RORY	11	1	10	1
Mean		10.4	5.3	12.6	2.8

Table A 7.20 Frequency of ambiguous, both, other and unintelligible references by condition - Experiment 18

Referent	Condition 'and'	'pron'
Ambiguous	13	55
Both	35	-
Other	3	-
Unintelligible	0	1

Table A 7.21 Summary tables for the analyses of variance of subject and object completions by condition - Experiment 18

F_1 Analysis by readers

Subject completions only

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	39	68.80			
Within readers	40	101.00			
Ending (and/pron)	1	8.45	8.45	3.56	0.06
Error	39	92.55	2.37		
Total		169.80			

Marginally significant main effect of ending (more subject completions when there was a pronoun at the end of the fragment than when there was no pronoun).

F_2 Analysis by sentences

Subject and object completions

Source	df	Sum of Squares	Mean Squares	F_2	p
Between sentences	11	102.23			
Within sentences	36	1400.25			
Ending (and/pron)	1	0.52	0.52	0.16	0.70
Error (a)	11	35.23	3.20		
Subject/Object	1	667.52	667.52	13.42	0.004
Error (b)	11	547.23	49.75		
Ending x S/O	1	67.69	67.69	9.07	0.01
Error (ab)	11	82.06	7.46		
Total		1502.48			

Significant main effect of subject/object completions (more completions in which the subject was first mentioned) and significant interaction between subject/object completions and ending of the fragment.

Table A 7.22 Frequency with which each reference term was used to refer to the subject and object in each sentence - Experiment 18

		Referent					
		SUBJECT			OBJECT		
Sentence	Reference term:	E	P	N	E	P	N
1	MARY *	0	0	1	-	0	9
2	JAMES	3	2	0	-	0	5
3	JANE	7	0	3	-	0	6
4	SARAH	12	2	0	-	1	0
5	SHAUN	6	2	0	-	0	8
6	MR BENTLEY	15	0	0	-	0	2
7	HERBIE	14	3	0	-	0	3
8	DIANE	11	2	0	-	1	2
9	MR ROBERTS	4	2	1	-	2	10
10	SIMON	16	2	0	-	1	0
11	FIONA	6	0	0	-	0	13
12	RORY	10	0	1	-	0	1
Mean		8.7	1.3	0.5	-	0.4	4.9

N.B. This analysis is only applicable to those sentence fragments which did not end in a pronoun.

* The lack of ellipsis in this passage is due to the conjunction 'when' at the end of the fragment.

E = Ellipsis
P = Pronoun
N = Name

Table A 7.23 Frequency with which different reference terms used to refer to ambiguous, both, other and unintelligible referents ('and' condition only) - Experiment 18

Reference term	Referent			
	Ambiguous	Both	Other	Unintelligible
Ellipsis	-	0	-	0
Pronoun	13	33	1	0
Name	-	2	2	0

Table A 8.1 Experimental sentences used in Experiment 19

'Old' sentences

		Number of words
1	Mary was asked by Jenny to phone the theatre to see what was on when she joined her for breakfast.	20
2	Sarah was visited by Trish and she told her what had been happening to her.	15
3	Shaun was led along the path by Ben and he called to him to be careful.	16
4	Herbie was seen by the policeman and he shot at him.	11
5	Mr Roberts was taught by Jonathan how to make a kite and he showed him how to make it fly properly.	21
6	Rory was met by Alfie on the street one day and he bit him.	14

Range: 11 - 21

Mean: 16.2

'New' sentences — All 15 words long

7 Janet was welcomed by Carol and she told her it was nice to see her.

8 Katie was upset by Susan and she asked her to come and talk things over.

9 Phillip was chased by Gerald and he shouted abuse at him in the dark alley.

10 Colin was victimised by Stuart and he called him all the names under the sun.

11 Kevin was admired by Charles and he spoke to him about the new business deal.

12 Barry was attacked by Tony and he punched him hard in the chest and face.

13 Tim was bullied by Julian and he accused him of stealing his new army knife.

14 Joanne was criticised by Fiona and she told her she was behaving like a child.

Table A 8.1 continued

15 The girl was rebuked by her mother and she expected her to be rather sorry.

16 The girl was greeted by her aunt and she took her out to have lunch.

17 The boy was cornered by the headmaster and he asked him about the school play.

18 The old man was approached by the policeman and he asked him what had happened.

19 The thief was followed by the policeman and he saw him cross the old bridge.

20 The schoolboy was injured by the motorist and he asked him to give his name.

21 The schoolboy was kidnapped by the terrorist and he asked him to ring his parents.

22 The nurse was telephoned by the woman and she asked her how her child was.

23 The girl was adored by her grandmother and she visited her as often as possible.

24 The girl was interviewed by the headmistress and she disliked her for being so rude.

25 The rapist was captured by the young policeman and he called him a filthy swine.

26 The Irish informer was deceived by the policeman and he led him into a trap.

Table A 8.2 Number of assignments to the first and second character for each sentence - Experiment 19

Sentence	Asst to:	First character	Second character
1	MARY	5	5
2	SARAH	6	4
3	SHAUN	3	7
4	HERBIE	4	6
5	MR ROBERTS	6	4
6	RORY	2	8
7	JANET	4	6
8	KATIE	9	1
9	PHILLIP	2	8
10	COLIN	3	7
11	KEVIN	3	7
12	BARRY	4	6
13	TIM	3	7
14	JOANNE	2	8
15	GIRL/MOTHER	1	9
16	GIRL/AUNT	1	9
17	THE BOY	0	10
18	THE OLD MAN	0	10
19	THE THIEF	0	10
20	SCHOOLBOY/MOTORIST	7	3
21	SCHOOLBOY/TERRORIST	2	8
22	THE NURSE	3	7
23	GIRL/GRANDMOTHER	6	3
24	GIRL/HEADMISTRESS	2	8
25	THE RAPIST	4	6
26	THE IRISH INFORMER	2	8
Mean		3.2	6.7

Table A 8.3 Summary tables for the analyses of variance of assignments - Experiment 19

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	9	0.45			
Within readers	10	520.50			
Assignment (1st/2nd)	1	414.05	414.05	35.01	0.0004
Error	9	106.45	11.83		
Total		520.95			

Significant main effect of assignment (more assignments to the second character than to the first).

F_2 Analysis by sentences

Source	df	Sum of Squares	Mean Squares	F_2	p
Between sentences	25	0.48			
Within sentences	26	418.50			
Assignment (1st/2nd)	1	159.25	159.25	15.36	0.0009
Error	25	259.25	10.37		
Total		418.98			

Significant main effect of assignment (more assignments to the second character than to the first).

Table A 8.4 Mean assignment rates (words per second) for each sentence by assignment - Experiment 19

Sentence		Assignment to First character	Second character
1	MARY	1.14	1.28
2	SARAH	1.72	1.77
3	SHAUN	2.35	1.63
4	HERBIE	1.94	1.75
5	MR ROBERTS	2.11	2.57
6	RORY	0.94	1.15
7	JANET	2.11	2.16
8	KATIE	1.83	1.56
9	PHILLIP	1.84	1.86
10	COLIN	2.92	2.09
11	KEVIN	1.47	1.23
12	BARRY	1.75	2.27
13	TIM	1.42	1.90
14	JOANNE	1.44	1.87
15	GIRL/MOTHER	2.26	1.61
16	GIRL/AUNT	1.63	2.97
17	THE BOY	2.53*	2.46
18	THE OLD MAN	2.00*	1.93
19	THE THIEF	2.69*	2.62
20	SCHOOLBOY/MOTORIST	1.82	1.86

continued...

Table A 8.4 continued

Sentence		Assignment to First character	Second character
21	SCHOOLBOY/TERRORIST	3.59	1.85
22	THE NURSE	2.21	2.52
23	GIRL/GRANDMOTHER	2.43	1.79
24	GIRL/HEADMISTRESS	3.86	2.10
25	THE RAPIST	2.27	1.75
26	THE IRISH INFORMER	2.63	1.99
Mean		2.11	1.94

* Calculated using Winer's formula

Table A 8.5 Summary tables for the analyses of variance of assignment rates by assignment - Experiment 19

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	9	4.10			
Within readers	10	1.33			
Assignment (1st/2nd)	1	0.04	0.04	0.25	0.64
Error	9	1.29	0.14		
Total		5.43			

No signficant effect.

F_2 Analysis by sentences

Source	df	Sum of Squares	Mean Squares	F_2	p
Between sentences	25	10.56			
Within sentences	23*	5.94			
Assignment (1st/2nd)	1	0.37	0.37	1.64	0.21
Error	22*	5.58	0.22		
Total		16.51			

No signficant effect.

* Degrees of freedom adjusted to take account of replacements using Winer's formula.

Table A 8.6 Mean assignment rates for each 'new' sentence by assignment - Experiment 19

Sentence		Assignment to First character	Second character
7	JANET	1.41	1.44
8	KATIE	1.22	1.04
9	PHILLIP	1.22	1.24
10	COLIN	1.95	1.40
11	KEVIN	0.98	0.82
12	BARRY	1.17	1.51
13	TIM	0.94	1.27
14	JOANNE	0.96	1.25
15	GIRL/MOTHER	1.51	1.08
16	GIRL/AUNT	1.09	1.98
17	THE BOY	1.71*	1.64
18	THE OLD MAN	1.36*	1.29
19	THE THIEF	1.81*	1.74
20	SCHOOLBOY/MOTORIST	1.21	1.24
21	SCHOOLBOY/TERRORIST	2.40	1.23
22	THE NURSE	1.47	1.68
23	GIRL/GRANDMOTHER	1.62	1.19
24	GIRL/HEADMISTRESS	2.57	1.40
25	THE RAPIST	1.51	1.17
26	THE IRISH INFORMER	1.76	1.33
Mean		1.49	1.35

* Calculated using Winer's formula.

Table A 8.7 Summary tables for the analyses of variance of assignment rates by assignment - Experiment 19, 'new' sentences only

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	9	1.77			
Within readers	10	0.69			
Assignment (1st/2nd)	1	0.02	0.02	0.31	0.60
Error	9	0.67	0.07		
Total		2.47			

No significant effect.

F_2 Analysis by sentences

Source	df	Sum of Squares	Mean Squares	F_2	p
Between sentences	19	2.90			
Within sentences	17*	2.47			
Assignment (1st/2nd)	1	0.21	0.21	1.81	0.19
Error	16	2.25	0.12		
Total		5.36			

No significant effect.

* Degrees of freedom adjusted to take account of replacements using Winer's formula.

Table A 8.8 Mean reading rates (words per second) for each sentence by condition - Experiment 20

Sentence		Pronoun referred to: First character	Second character
1	MARY	3.84	4.73
2	SARAH	4.35	4.13
3	CLARE	4.83	4.81
4	HERB	3.82	3.76
5	MR ROBERTS	4.87	4.13
6	RORY	5.07	4.22
7	JANET	5.01	4.73
8	KATIE	4.62	4.90
9	PHILLIP	4.26	3.91
10	COLIN	4.51	5.01
11	KEVIN	3.78	4.26
12	BARRY	3.74	4.45
13	TIM	4.25	3.83
14	JOANNE	4.80	4.67
15	GIRL/MOTHER	4.39	4.56
16	GIRL/AUNT	4.59	4.53
17	THE BOY	4.32	3.93
18	THE OLD MAN	4.29	4.48
19	THE THIEF	3.84	3.23
20	SCHOOLBOY/MOTORIST	4.42	4.94

continued...

Table A 8.8 continued

Sentence		Pronoun referred to: First character	Pronoun referred to: Second character
21	SCHOOLBOY/TERRORIST	4.42	4.54
22	THE NURSE	3.49	4.21
23	GIRL/GRANDMOTHER	5.28	4.12
24	GIRL/HEADMISTRESS	4.19	5.05
25	THE RAPIST	4.39	4.31
26	THE IRISH INFORMER	3.44	4.35
Mean		4.34	4.38

Table A 8.9 Summary tables for the analyses of variance of reading rates by condition - Experiment 20

F_1 Analysis by readers

Source	df	Sum of Squares	Mean Squares	F_1	p
Between readers	19	35.89			
Within readers	20	1.01			
Pronoun = 1st/2nd	1	0.02	0.02	0.30	0.60
Error	19	0.99	0.05		
Total		36.90			

No significant effect.

F_2 Analysis by sentences

Source	df	Sum of Squares	Mean Squares	F_2	p
Between sentences	25	6.62			
Within sentences	26	3.94			
Pronoun = 1st/2nd	1	0.02	0.02	0.12	0.73
Error	25	3.93	0.16		
Total		10.56			

No significant effect.

REFERENCES

Aaronson, D. & Ferres, S. (1984). Reading strategies for children and adults: Some empirical evidence. J.V.L.V.B., 23, 189-220.

Allerton, D.J. (1978). The notion of 'givenness' and its relation to presupposition and to theme. Lingua, 44, 133-168.

Anderson, A., Garrod, S.C. & Sanford, A.J. (1983). The accessibility of pronominal antecedents as a function of episode shifts in narrative text. Quarterly Journal of Experimental Psychology, 35A, 427-440.

Anisfeld, M. & Klenbort, I. (1973). On the functions of structural paraphrase: The view from the passive voice. Psychological Bulletin, 79, 117-126.

Baddeley, A.D. (1981). The concept of working memory: A view of its current state and probable future development. Cognition, 10, 17-23.

Baddeley, A.D. & Hitch, G. (1974). Working Memory. In G.H. Bower (Ed.), The Psychology of Learning and Motivation, Vol. 8. New York: Academic Press.

Bernado, R. (1980). Subjecthood and Consciousness. In W.L. Chafe (Ed.), The Pear Stories, Vol. III: Advances in Discourse Processes. Norwood, New Jersey: Ablex Publishing Corporation.

Bever, T.G. (1970). The cognitive basis for linguistic structures. In J.R. Hayes (Ed.), Cognition and the Development of Language. New York: J. Wiley and Sons, Inc.

Bever, T.G. (1975). Functional explanations require independently motivated theories. In R.E. Grossman, L.J. San & T. Vance (Eds.), Papers from the Parasession on Functionalism. Chicago: Chicago Linguistic Society.

Bickerton, D. (1975). Some assertions about presuppositions about pronominalization. In R.E. Grossman, L.J. San & T. Vance (Eds.), Papers from the Parasession on Functionalism. Chicago: Chicago Linguistic Society.

Bloom, D. & Hays, D.G. (1978). Designation in English. In J. Hinds (Ed.), Anaphora in Discourse. (Current Inquiry into Language and Linguistics, 22.) Edmonton, Alberta: Linguistic Research Inc.

Bolinger, D.L. (1979). Pronouns in Discourse. Syntax and Semantics, 12, 289-309.

Box, G.E.P & Cox, D.R. (1964). An analysis of transformations. Journal of the Royal Statistical Society,

Series B, 26, 211-252.

Box, G.E.P., Hunter, W.G. & Hunter, J.S. (1978). Statistics for Experimenters. An Introduction to Design, Data Analysis and Model Building. John Wiley and Sons, Inc.

Broadbent, D.E. (1973). In Defence of Empirical Psychology. London: Methuen.

Caramazza, A., Grober, E., Garvey, C. & Yates, J. (1977). Comprehension of anaphoric pronouns. J.V.L.V.B., 16, 601-609.

Caramazza, A. & Gupta, S. (1979). The roles of topicalisation, parallel function and verb semantics in the interpretation of pronouns. Linguistics, 17, 497-518.

Carpenter, P.A. & Just, M.A. (1977). Reading comprehension as eyes see it. In M.A. Just & P.A. Carpenter (Eds.), Cognitive Processes in Comprehension. Hillsdale, New Jersey: Lawrence Erlbaum Associates.

Carpenter, P.A. & Just, M.A. (1978). Integrative processes in comprehension. In D. LaBerge & J. Samuels (Eds.), Basic processes in reading: Perception and Comprehension. Hillsdale, N.J.: Lawrence Erlbaum Associates.

Carpenter, P.A. & Just, M.A. (1981). Cognitive processes in Reading: Models based on reader's eye fixations. In A.M. Lesgold & C.A. Perfetti (Eds.), Interactive processes in reading. Hillsdale, New Jersey: Lawrence Erlbaum Associates, Inc.

Chafe, W.L. (1972). Discourse structure and human knowledge. In J.B. Carroll & R.O. Freedle (Eds.), Language Comprehension and the Acquisition of Knowldge. Washington: Winston.

Chafe, W.L. (1974). Language and Consciousness. Language, 50, 111-133.

Chafe, W.L. (1976). Givenness, contrastiveness, definiteness, subjects, topics and point of view. In C.N. Li (Ed.), Subject and Topic. New York: Academic Press.

Chang, F.R. (1980). Active memory processes in visual sentence comprehension: Clause effects and pronominal reference. Memory and Cognition, 8, 58-64.

Chang, S.J. (1978). Anaphora in Korean. In J. Hinds (Ed.), Anaphora in Discourse. (Current Inquiry into Language and Linguistics, 22.) Edmonton, Alberta: Linguistic Research Inc.

Charniak, E. (1972). Toward a model of children's story comprehension. Technical Report 266, Artificial

Intelligence Laboratory, Massachusetts Institute of Technology.

Chomsky, N. (1957). Syntactic Structures. The Hague: Mouton.

Chomsky, N. (1965). Aspects of the Theory of Syntax. Cambridge, Massachusetts: MIT.

Chomsky, N. (1971). Deep structure, surface structure and semantic interpretation. In D.D. Steinberg & L.A Jakobovits (Eds.), Semantics: An Interdisciplinary Reader in Philosophy, Linguistics and Psychology. London: Cambridge University Press.

Chomsky, N. (1981). Lectures on Government and Binding. Dordrecht: Foris.

Christensen, F. (1965). A general rhetoric of the paragraph. College Composition and Communication, 16, 144-156.

Cirilo, R.K. & Foss, D.J. (1980). Text structure and reading times for sentences. J.V.L.V.B., 19, 96-109.

Clancy, P.M. (1980). Referential choice in English and Japanese narrative discourse. In W.L. Chafe (Ed.), The Pear Stories, Vol. III: Advances in Discourse Processes. Norwood, New Jersey: Ablex Publishing Corporation.

Clark, H.H. (1965). Some structural properties of simple active and passive sentences. J.V.L.V.B., 4, 365-370.

Clark, H.H. (1973). The language-as-fixed-effect fallacy. A critique of language statistics in psychological research. J.V.L.V.B., 12, 335-339.

Clark, H.H. & Card, S.K. (1969). The role of semantics in remembering comparative sentences. Journal of Experimental Psychology, 82, 545-553.

Clark, H.H. & Haviland, S.E. (1977). Comprehension and the given-new contract. In R.O. Freedle (Ed.), Discourse Comprehension and Production. Norwood, N.J.: Ablex.

Clark, H.H. & Sengul, C.J. (1979). In search of referents for nouns and pronouns. Memory and Cognition, 7, 35-41.

Clifton, C. & Slowiaczek, M.I. (1981). Integrating new information with old knowledge. Memory and Cognition, 9, 142-148.

Cole, P., Harbert, W., Hermon, G. & Sridhar, S.N. (1980). The acquisition of subjecthood. Language, 56, 719-743.

Cowan, J.R. (1980). The significance of parallel function in the assignment of intrasentential anaphora. In J.

Kreiman and A.E. Ojeda (Eds.), Papers from the Parasession on Pronouns and Anaphora. Chicago: Chicago Linguistic Society.

Creider, C. (1978). Anaphora in Kalenjin (Nadi-Kipsigis). In J. Hinds (Ed.), Anaphora in Discourse. (Current Inquiry into Language and Linguistics, 22.) Edmonton, Alberta: Linguistic Research Inc.

Cruse, D.A. (1973). Some thoughts on agentivity. Journal of Linguistics, 9, 11-23.

Daneman, M. & Carpenter, P.A. (1980). Individual differences in working memory and reading. J.V.L.V.B., 19, 450-466.

Dell, G.S., McKoon, G. & Ratcliff, R. (1983). The activation of antecedent information during processing of anaphoric reference in reading. J.V.L.V.B., 22, 121-132.

de Villiers, P.A. (1974). Imagery and theme in recall of connected discourse. Journal of Experimental Psychology, 103, 263-268.

Dooling, D.J. & Mullet, R.L. (1973). Locus of thematic effects in retention of prose. Journal of Experimental Psychology, 97, 404-406.

Ehrlich, K. (1979). 'Comprehension and Anaphora.' Unpublished PhD thesis, University of Sussex.

Ehrlich, K. (1980). Comprehension of pronouns. Quarterly Journal of Experimental Psychology, 32, 247-255.

Ehrlich, K. (1983). Eye movements in pronoun assignment: A study of sentence integration. In K. Rayner (Ed.), Eye movements in reading: Perceptual and language processes. New York: Academic Press.

Ehrlich, K. & Rayner, K. (1983). Pronoun assignment and semantic integration during reading: Eye movements and immediacy of processing. J.V.L.V.B., 22, 75-87.

Engelkamp, J. (1982). Given and new information: Theoretical positions and empirical evidence. Arbeiten der Fachrichtung Psychologie der Universitat des Saarlandes, No. 79, Saarbruchen.

Ferguson, G.A. (1976). Statistical analysis in psychology and education. (Fourth edition.) Tokyo: McGraw Hill Kogakusha Ltd.

Fillenbaum, S. (1966). Memory for gist: Some relevant variables. Language and Speech, 9, 217-227.

Fillmore, C.J. (1968). The case for case. In E.W. Bach & R.T. Harms (Eds.), Universals in Linguistic Theory. New

York: Holt, Rinehart and Winston.

Fillmore, C.J. (1970). Subject, speaker and roles. Working papers in Linguistics, No. 4, 32-63. Computer and Information Science. Ohio State University.

Firbas, J. (1964). On defining the theme in functional sentence analysis. Travaux Linguistiques de Prague, 1, 267-280.

Fletcher, C.R. (1984). Markedness and topic continuity in discourse processing. J.V.L.V.B., 23, 487-493.

Frazier, L. & Rayner, K. (1982). Making and correcting errors during sentence comprehension: Eye movements in the analysis of structurally ambiguous sentences. Cognitive Psychology, 14, 178-210.

Fries, C.C. (1952). The structure of English. New York: Harcourt Brace.

Galambos, S.J. (1980). A clarification of the notion of topic: Evidence from popular spoken French. In J. Kreiman & A.E. Ojeda (Eds.), Papers from the parasession on pronouns and anaphora. Chicago: Chicago Linguistic Society.

Garnham, A. (1981). Mental models as representations of text. Memory and Cognition, 9, 560-565.

Garnham, A. (1982). Testing psychological theories about inference making. Memory and Cognition, 10, 341-349.

Garnham, A., Oakhill, J. & Johnson-Laird, P.N. (1982). Referential continuity and the coherence of discourse. Cognition, 11, 29-46.

Garrod, S.C. & Sanford, A.J. (1977). Interpreting anaphoric relations: The integration of semantic information while reading. J.V.L.V.B., 16, 77-90.

Garrod, S.C. & Sanford, A.J. (1978). Anaphora: A problem in text comprehension. In D.N. Campbell & P.T. Smith (Eds.), Recent advances in the psychology of language. New York: Plenum Press.

Garrod, S.C. & Sanford, A.J. (1982). The mental representation of discourse in a focused memory system: Implications for the interpretation of anaphoric noun phrases. Journal of Semantics, 1, 21-41.

Garrod, S.C. & Sanford, A.J. (1983). Topic dependent effects in language processing. In G.B. Flores D'Arcais & R.J. Jarvella (Eds.), Process of Language Understanding. Chichester: J. Wiley.

Garvey, C. & Caramazza, A. (1974). Implicit causality in

verbs. Linguistic Inquiry, 5, 459-464.

Garvey, C., Caramazza, A. & Yates, J. (1976). Factors influencing assignment of pronoun antecedents. Cognition, 3, 227-243.

Givón, T. (1976). Topic, pronoun and grammatical agreeement. In C.N. Li (Ed.), Subject and Topic. New York: Academic Press.

Givón, T. (1983). (Ed.) Topic continuity in discourse: A quantitative cross-language study. Amsterdam: J. Benjamins.

Greenspan, S.L. & Segal, E.M. (1984). Reference and comprehension: A topic-comment analysis of sentence-picture verification. Cognitive Psychology, 16, 556-606.

Grimes, J.E. (1975). The thread of discourse. The Hague: Monton, Janua Liguarum.

Grimes, J.E. (1978). (Ed.), Papers on Discourse. Dallas: Summer Institute of Linguistics, Inc.

Grober, E.H., Beardsley, W. & Caramazza, A. (1978). Parallel function strategy in pronoun assignment. Cognition, 6, 117-133.

Grosz, B.J. (1977). The representation and use of focus in a system for understanding dialogs. In Proceedings of the International Joint Conference on Artificial Intelligence. Vol. 1. Cambridge, Massachusetts.

Grosz, B.J. (1978). Focusing in dialog. In D.L. Waltz (Ed.), TINLAP-2: Theoretical issues in natural language processing - 2. Uniersity of Illinois at Urbana-Champaign.

Grosz, B.J. (1981). Focusing and description in natural language dialogues. In A. Joshi, B. Webber & I. Sag (Eds.), Elements of discourse understanding. Cambridge: Cambridge University Press.

Halliday, M.A.K. (1967, 1968). Notes on transitivity and theme in English (Parts 1-3). Journal of Linguistics, 3, 37-81, 199-244; 4, 179-215.

Halliday, M.A.K. (1970). Language structure and language function. In J. Lyons (Ed.), New horizons in linguistics. Hammondsworth: Penguin.

Haviland, S.E. & Clark, H.H. (1974). What's new? Acquiring new information as a process in comprehension. J.V.L.V.B., 13, 512-521.

Henderson, R.J. (1982). Decay and refresh characteristics of working representations during text comprehension. Paper presented at Annual Conference on Postgraduate

Psychology, Univeristy of Kent at Canterbury.

Hettmansperger, T.P. (1984). Statistical inference based on ranks. J. Wiley and Sons.

Hinds, J. (1975). Passives, pronouns, themes and rhemes. Glossa, 9, 79-106.

Hinds, J. (1977). Paragraph structure and pronominalisation. Papers in Linguistics, 10, 77-99.

Hinds, J. (1978). (Ed.) Anaphora in Discourse. (Current Inquiry into Language and Linguistics, 22.) Edmonton, Alberta: Linguistic Research Inc.

Hirst, G. (1981). Anaphora in Natural Language Understanding: A Survey. Lecture notes in computer sciences, 119. New York: Springer-Verlag.

Hirst, W. & Brill, G.A. (1980). Contextual aspects of pronoun assignment. J.V.L.V.B., 19, 168-175.

Hobbs, J.R. (1976). Pronoun resolution. Research report 76-1, Department of Computer Sciences, City College, City University of New York.

Hobbs, J.R. (1978). Resolving pronoun references. Lingua, 44, 311-338.

Hobbs, J.R. (1979). Coherence and coreference. Cognitive Science, 3, 67-90.

Hockett, C.F. (1958). A Course in Modern Linguistics. New York: Macmillan.

Hornby, P.A. (1971). The role of topic-comment in the recall of cleft and pseudo-cleft sentences. In Papers from the Seventh Regional Meeting, Chicago Linguistic Society. Chicago, Illinois: Chicago Linguistic Society.

Hornby, P.A. (1972). The psychological subject and predicate. Cognitive Psychology, 3, 632-642.

Hornby, P.A. (1974). Surface structure and presupposition. J.V.L.V.B., 13, 530-538.

Hsieh, H.I. (1979). Logical, syntactic and morphological notions of subject. Lingua, 48, 329-353.

Huttenlocher, J., Eisenberg, K. & Strauss, S. (1968). Comprehension and relation between perceived actor and logical subject. J.V.L.V.B., 7, 527-530.

Jackendoff, R.S. (1972). Semantic interpretation in generative grammar. Cambridge: MIT Press.

James, C.T. (1972). Theme and imagery in the recall of

active and passive sentences. J.V.L.V.B., 11, 205-211.

Jarvella, R.J. & Engelkamp, J. (1983). Pragmatic influences in producing and perceiving language: A critical and historical perspective. In G.B. Flores D'Arcais & R.J. Jarvella (Eds.), The process of language understanding. Chichester: J. Wiley and Sons.

Jarvella, R.J. & Nelson, T.R. (1982). Focus of information and general knowledge in language understanding. In J.-F. Le Ny & W. Kintsch (Eds.), Language and Comprehension. Amsterdam: North Holland.

Jesperson, O. (1954). A modern English grammar on historical principles, part VII: Syntax. London: Allen and Unwin.

Johnson-Laird, P.N. (1968a). The interpretation of the passive voice. Quarterly Journal of Experimental Psychology, 20, 69-73.

Johnson-Laird, P.N. (1968b). The choice of the passive voice in a communicative task. British Journal of Psychology, 59, 7-15.

Johnson-Laird, P.N. (1981). Mental models of meaning. In A. Joshi, B. Webber & I. Sag (Eds.), Elements of discourse understanding. Proceedings of the Conference on Computational Aspects on Linguistic Structure and Discourse setting, Pennsylvania. Cambridge: Cambridge University Press.

Johnson-Laird, P.N. (1983). Mental Models. Cambridge: Cambridge University Press.

Johnson-Laird, P.N. & Garnham, A. (1980). Descriptions and discourse models. Linguistics and Philosophy, 3, 371-393.

Johnson-Laird, P.N. & Stevenson, R.J. (1970). Memory for Syntax. Nature, 227, 412.

Josephs, L.S. (1978). Anaphora in Palauan. In J. Hinds (Ed.), Anaphora in Discourse. (Current Inquiry into Language and Linguistics, 22.) Edmonton, Alberta: Linguisitic Research Inc.

Just, M.A. & Carpenter, P.A. (1980). A theory of reading - from eye fixations to comprehension. Psychological Review, 87, 329-354.

Just, M.A., Carpenter, P.A. & Wooley, J.D. (1982). Paradigms and processes in reading comprehension. Journal of Experimental Psychology, General, 111, 228-238.

Kail, M. & Léveillé, M. (1977). Comprehension of pronominal reference with children and adults. Année Psychologique, 77, 79-94.

Kantor, R.N. (1977). The management and comprehension of discourse connection by pronouns in English. Unpublished PhD thesis, Ohio State University.

Karmiloff-Smith, A. (1980). Psychological processes underlying pronominalisation and non-pronominalisation in children's connected discourse. In J. Kreiman & A.E. Ojeda (Eds.), Papers from the parasession on pronouns and anaphora. Chicago: Chicago Linguistic Society.

Katz, J.J. & Postal, P. (1964). An Integrated Theory of Linguistic Descriptions. Cambridge, Massachusetts: M.I.T. Press.

Keenan, E.L. (1976). Anaphora and cross referencing systems. Paper presened at Typology and Field Work Workshop. Oswego, New York.

Keenan, E.O. (1974). Conversation and oratory in Vakinankaratra Madagascar. Unpublished PhD thesis, University of Pennsylvania.

Kieras, D.E. (1977). Problems of reference in text comprehension. In M.A. Just & P.A. Carpenter (Eds.), Cognitive processes in comprehension. Hillsdale, New Jersey: Erlbaum.

Kieras, D.E. (1978). Good and bad structure in simple paragraphs: Effects on apparent theme, reading time and recall. J.V.L.V.B., 17, 13-28.

Kieras, D.E. (1979). The relation of topics and themes in naturally occurring technical paragraphs. Technical report number 1, University of Arizona.

Kieras, D.E. (1980a). Initial mention as a signal to thematic content in technical passages. Memory and Cognition, 8, 345-353.

Kieras, D.E. (1980b). Abstracting main ideas from technical prose: A preliminary study of six passages. Technical report number 5, University of Arizona.

Kieras, D.E. (1981a). Component processes in the comprehension of simple prose. J.V.L.V.B., 20, 1-23.

Kieras, D.E. (1981b). The role of major referents and sentence topics in the construction of passage macrostructure. Discourse Processes, 4, 1-15.

Kieras, D.E. (1982). Thematic processes in the comprehension of technical prose: Final report. Technical report number (UARZ/DP/TR-82/ONR-10), University of Arizona.

Kintsch, W. (1974). The representation of meaning in

memory. Hillsdale, New Jersey: Lawrence Erlbaum Associates.

Kintsch, W. & van Dijk, T.A. (1978). Toward a model of text comprehension and production. Psychological Review, 85, 363-394.

Klenbort, I. & Anisfeld, M. (1974). Markedness and Perspective in the Interpretation of the Active and Passive voice. Quarterly Journal of Experimental Psychology, 26, 189-195.

Kozminsky, E. (1977). Altering comprehension: The effect of biasing titles on text comprehension. Memory and Cognition, 5, 482-490.

Kuno, S. (1972). Functional sentence perspective: A case study from Japenese and English. Linguistic Inquiry, 3, 269-320.

Kuno, S. (1976). Subject, theme and the speaker's empathy - A reexamination of relativisation phenomenon. In C.N. Li (Ed.), Subject and Topic. New York: Academic Press.

Kuno, S. & Kaburaki, E. (1977). Empathy and Syntax. Linguistic Inquiry, 8, 627-672.

Leach, C. (1979). Introduction to Statistics. A Nonparametric approach for the Social Sciences. Chichester: John Wiley and Sons.

Lees, R.B. & Klima, E.S. (1963). Rules for English Pronominalisation. Language, 39, 17-28.

Lesgold, A.M. (1972). Pronominalisation: A device for unifying sentences in memory. J.V.L.V.B., 11, 316-323.

Lesgold, A.M., Roth, S.F. & Curtis, M.E. (1979). Foregrounding effects in discourse comprehension. J.V.L.V.B., 18, 291-308.

Levin, J.A. (1975). 'Process models of reference.' Unpublished manuscript cited by Carpenter & Just (1977).

Li, C.N. & Thompson, S.A. (1976). Subject and topic: A new typology of language. In C.N. Li (Ed.), Subject and Topic. New York: Academic Press.

Lockman, A. & Klappholz, A.D. (1980). Towards a procedural model of contextual reference resolution. Discourse Proceses, 3, 25-71.

Long, R.B. (1961). The sentence and its parts: A grammar of contemporary English. Chicago: University of Chicago Press.

Lyons, J. (1968). Introduction to theoretical linguistics.

Cambridge: Cambridge University Press.

Lyons, J. (1977). Semantics, Volumes 1 and 2. Cambridge: Cambridge University Press.

Maratsos, M.P. (1973). The effects of stress on the understanding of pronominal coreference in children. Journal of Psycholinguistic Research, 2, 1-8.

Marslen-Wilson, W.D., Levy, E. & Tyler, L.K. (1982). Producing interpretable discourse: The establishment and maintenance of reference. In R.J. Jarvella & W. Klein (Eds.), Speech, Place and Action. Chichester: Wiley.

Marslen-Wilson, W.D. & Tyler, L.K. (1980). Towards a psychological basis for a theory of anaphora. In J. Kreiman & A.E. Ojeda (Eds.), Papers from the parasession on pronouns and anaphora. Chicago: Chicago Linguistic Society.

McKoon, G. & Ratcliff, R. (1980). The comprehension processes and memory structures involved in anaphoric reference. J.V.L.V.B., 19, 668-682.

Mihailović, L. (1963). Some observations on the use of the passive voice. English Language Teaching, 17, 77-81.

Moar, K. (1982). Character foregrounding in story text. Paper presented at the Annual Conference on Postgraduate Psychology, University of Kent at Canterbury.

Morgan, J. (1975). Some remarks on the nature of the sentence. In R.E. Grossman, L.J. San & T. Vance (Eds.), Papers from the Parasession on Functionalism. Chicago: Chicago Linguistic Society.

Murphy, G.L. (1984). Establishing and accessing referents in discourse. Memory and Cognition, 12, 489-497.

Norman, D.A., Rumelhart, D.E. & the LNR Research group (1975) Explorations in Cognition. San Fransisco: Freeman.

Oakhill, J. (1981). 'Children's reading comprehension.' Unpublished D Phil thesis, University of Sussex.

Olson, D. (1970). Language and thought: Aspects of a cognitive theory of semantics. Psychological Review, 77, 257-273.

Owens, J., Bower, G.H. & Black, J.B. (1979). "The Soap Opera" Effect in Story Recall. Memory and Cognition, 7, 185-191.

Perfetti, C.A. & Goldman, S.R. (1974). Thematization and sentence retrieval. J.V.L.V.B., 13, 70-79.

Perfetti, C.A. & Goldman, S.R. (1975). Discourse functions

of thematization and topicalization. Journal of Psycholinguistic Research, 4, 257-271.

Perfetti, C.A. & Lesgold, A.M. (1977). Discourse comprehension and sources of individual differences. In M.A. Just & P.A. Carpenter (Eds.), Cognitive processes in comprehension. Hillsdale, New Jersey: Erlbaum.

Pompi, K.G. & Lachman, R. (1967). Surrogate processes in the short-term retention of connected discourse. Journal of Experimental Psychology, 75, 143-148.

Postal, P. (1970). On coreferential complement subject deletion. Linguistic Inquiry, 1, 439-500.

Purkiss, E. (1978). 'The effect of foregrounding on pronominal reference.' Unpublished undergraduate thesis, University of Glasgow.

Quirk, R., Greenbaum, S.W., Leech, C.N. & Svartvik, J. (1972). Grammar of Contemporary English. London: Longmans.

Reinhart, T. (1983). Anaphora and semantic interpretation. Kent: Crook Helm Ltd.

Rondal, J.A., Brédart, S., Leyen, N., Neuville, P. & Péree, F. (1983). Factors influencing assignment of anaphoric pronoun coreference in children and adults. Paper presented at Child Language Seminar, University of Strathclyde.

Rosenbaum, P.S. (1967). The Grammar of English Predicate Complement Constructions. Cambridge: M.I.T. Press.

Rubin, D.C. (1978). A unit analysis of prose memory. J.V.L.V.B., 17, 599-620.

Sanford, A.J. & Garrod, S.C. (1981). Understanding Written Language. Explorations in comprehension beyond the sentence. Chichester: J. Wiley and Sons Ltd.

Sanford, A.J., Garrod, S.C., Lucas, A. & Henderson, R. (1983). Resolving pronominal anaphors and identifying referents. Journal of Semantics, 2, 303-314.

Sapir, E. (1921). Language: An introduction to the study of speech. New York: Harcourt, Brace and World.

Schultz, E.E. & Kamil, M.L. (1979). The role of some definite references in linguistic integration. Memory and Cognition, 7, 42-49.

Segal, E.M. & Greenspan, S.L. (1982). Presupposition and assertion in sentence verification. Paper presented at the meeting of the Psychonomic Society, Minneapolis.

Sheldon, A. (1974). The role of parallel function in the acquisition of relative clauses in English. J.V.L.V.B., 13, 272-281.

Sidner, C.L. (1979). Towards a computational theory of definite anaphor comprehension in English discourse. MIT AI Lab. memo. TR 537.

Smith, C.S. (1971). Sentences in discourse: An analysis of a discourse by Bertrand Russell. Journal of Linguistics, 7, 213-235.

Springston, F.J. (1975). 'Some cognitive aspects of presupposed coreferential anaphora.' Unpublished PhD thesis, Stanford University.

Sridhar, S.N. (1979). Dative subject and the notion of subject. Lingua, 49, 99-125.

Stevenson, R.J., Thompson, C. & Kleinman, D. (1981). Millisecond timing with the PET microcomputer. Current Psychological Reviews, 1, 346-350.

Sulin, R.A. & Dooling, D.J. (1974). Intrusion of a thematic idea in retention of prose. Journal of Experimental Psychology, 103, 255-262.

Svartvik, J. (1966). On the voice in the English verb. The Hague: Mouton.

Tai, J.H-Y. (1978). Anaphoric constraints in Mandarin Chinese narrative. In J. Hinds (Ed.), Anaphora in Discourse. (Current Inquiry into Language and Linguistics, 22.) Edmonton, Canada: Linguistic Research Inc.

Tannenbaum, P.H. & Williams, F. (1968a). Generation of active and passive sentences as a function of subject or object focus. J.V.L.V.B., 7, 246-250.

Tannenbaum, P.H. & Williams, F. (1968b). Prompted word replacement in active and passive sentences. Language and Speech, 11, 220-229.

Thorndyke, P.W. (1976). The role of inference in discourse comprehension. J.V.L.V.B., 15, 437-446.

Tinker, M.A. (1965). Bases for effective reading. Minneapolis: University of Minnesota Press.

Tyler, L.K. (1983). The development of discourse mapping processes: The on-line interpretation of anaphoric expressions. Cognition, 13, 309-314.

Tyler, L.K. & Marslen-Wilson, W.D. (1982). Processing utterances in discourse contexts: On-line resolution of anaphors. Journal of Semantics, 1, 297-314.

Tyler, L.K., Marslen-Wilson, W.D. & Koster, C. (1982). Integrative processes in discourse comprehension. Paper presented at conference on Language, Reasoning and Inference, School of Epistemics, University of Edinburgh.

Vachek, J. (1966). (Ed.), The Linguistic School of Prague: An introduction to its theory and practice. Bloomington: Indiana University Press.

van Dijk, T.A. (1977). Text and Context: Explorations in the semantics and pragmatics of discourse. London: Longmans.

van Dijk, T.A. (1979). Relevance assignment in discourse comprehension. Discourse Processes, 2, 113-126.

Walker, C.H. & Yekovich, F.R. (1984). Script-based inferences: Effects of text and knowledge variables on recognition memory. J.V.L.V.B., 23, 357-370.

Whitehead, E.L. (1982). Distance and foregrounding effects on pronoun interpretation. Paper presented at the Cambridge meeting of the E.P.S., March, 1982.

Wilks, Y.A. (1973). Preference semantics. Stanford AI Lab. memo. AIM-206/Stanford University Computer Science report CS-337. Also in E.L. Keenan (Ed.), Formal semantics of natural language. Cambridge: Cambridge University Press, 1975.

Wilks, Y.A. (1975). A preferential pattern-seeking semantics for natural language inference. Artificial Intelligence, 6, 53-74.

Winer, B.J. (1970). Statistical principles in Experimental Design. Second edition. New York: McGraw-Hill.

Winograd, T. (1972). Understanding Natural Language. New York: Academic Press.

Wright, P. & Glucksberg, S. (1976). Choice of definite versus indefinite article as a function of sentence voice and reversibility. Quarterly Journal of Experimental Psychology, 28, 561-570.

Wykes, T. (1981) Inference and children's comprehension of pronouns. Journal of Experimental Child Psychology, 32, 264-278.

Yekovich, F.R., Walker, C.H. & Blackman, H.S. (1979). The role of presupposed and focal information in integrating sentences. J.V.L.V.B., 18, 535-548.

Ziff, P. (1966). The nonsynonymy of active and passive sentences. Philosophical Review, 75, 226-232.

Zimmer, H.D. & Engelkamp, J. (1981). The given-new structure of cleft sentences and their influence on picture viewing. Psychological Research, 43, 375-389.