

Understanding school mealtimes as contexts for children's peer relations and adjustment to school

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I, Helen MacIntyre, confirm that the work presented in this thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated in the thesis.

Signed:

A solid black rectangular box redacting the signature.

Abstract

Background: Informal school mealtimes are highly valued by children as time to spend with friends and may be key sites for peer relationships, social development and associated adjustment outcomes. However, this context-specific social experience has been little studied despite recent erosion of opportunities for children to socialise freely and concerns that this threatens their wellbeing.

Aim: To make a detailed observational study of children's informal social experience in 'open' mealtime settings to examine their value for peer relationships and adjustment.

Sample: Systematic Observations (SOs)/Questionnaires: focused on 105 children (45 girls) from one Year 5 class in four schools. Videos: focused on three boy and four girl pairs (14 children).

Methods: SOs involved coding 2652 instances of interaction analysed to provide a broad description of mealtime social experience and allow examination of associations with questionnaire measures of peer relationships and School Liking. Mealtime videos were analysed using a Grounded Theory approach to examine relationship processes embedded in interactions.

Findings: Children were socially engaged in almost 75% of observations. Interactions were mainly with own class, own gender peers. Mealtime groups included networks of best friends. Peer acceptance and friendship security predicted mealtime engagement. No associations were found with School Liking. Fifteen relational processes were identified involving children 'moving towards' peers (e.g. *Being mutually responsive*) or 'away' from them (e.g. *Marginalising* or *Targeting*). Connections with friendship/peer acceptance are proposed. Relational processes were intertwined with interactions topics/activities involving peer culture, sharing information about lives, negotiation of mealtime rules and organisation.

Conclusion: Open school mealtimes are contexts for experiencing and learning about peer relationships via a rich variety of conversational interactions. Findings underline the importance of 1. Observing peer relations in-action to understand relevant social mechanisms 2. Planning mealtimes with understanding that they can be significant sites for children's current and future social functioning.

Impact Statement

My focus in this thesis on the importance of children's informal interactions in relatively unconstrained mealtime settings is timely. Typically, children's interactions in UK classrooms are tightly controlled by teachers (Howe, 2010). In terms of 'informal' times in the school day, breaktimes have become shorter over past decades (Baines & Blatchford, 2019). And, in some schools, children's mealtime interactions with peers are overseen by staff in order to teach good table manners or conversational skills, to foster adult-child relationships or to eliminate behaviour problems, for example. In this study, I provide evidence of potential social and developmental benefits for children of socialising more freely with peers during school mealtimes and, by implication, show why restrictive organisation of this time may be damaging.

Therefore, in relation to practice in schools, issues raised and findings from this study have potential to add to thinking by school staff and other education professionals (advisors, educational psychologists, policy makers, teacher trainers) about the importance of mealtimes in particular, and informal school contexts in general, for children's wellbeing, social development and so for their wider functioning. Achieving this could involve working in conjunction with staff or other professionals to produce and disseminate accessible summary documents (short blog posts/articles, checklists, slides, furniture plans) which form a basis for discussion. Discussions might focus on how mealtime interactions are connected to peer relationships; best ways to create time and space for children's socialising; when and how adults might intervene – or refrain from intervening – to facilitate children to engage independently in satisfying, developmentally significant interactions.

Within academia, I intend to create impact through writing journal articles and book chapters, giving presentations, teaching and networking. Through these activities, I will add to work by others which problematises the excessive structuring of children's lives by adults. To date, this issue has been more commonly discussed in relation to children's experience on the playground, in the classroom or outside school. I can show, in addition, how relationally important processes may be at work when

children are given time to interact freely during school mealtimes where eating is often prioritised.

This contribution will add to understanding in the field of peer relations of how everyday contextualised social experience with peers is connected to peer relationships and social development. It will simultaneously highlight to other researchers how school mealtimes provide a valuable site, alongside the playground, for the ecologically valid study of children's peer relations and culture. In conjunction with this, and along with colleagues in my department who have an interest in research of children's interactions in school settings, I can help to raise the profile of naturalistic observation as a '*fundamental methodology*' for psychology (Heft, 2018). Specifically, my work illustrates how several observation methods and analysis of them (systematic observation, qualitative analysis of video footage, social network analysis) can be combined to document and provide insights into children's social experience. Tools and approaches I have used and/or developed may then be adapted by other researchers for their own purposes.

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Contents

Abstract	3
Impact Statement	4
Acknowledgements	6
List of Tables	19
List of Figures	22
List of Transcript Extracts	24
Chapter 1 Introduction to a study of school mealtime social experience	26
1.1 Focus and contribution of the study	26
1.2 Origins of the study: neglect of social aspects of children’s school mealtime experience	27
1.3 Summary of the rationale and empirical basis for a study of school mealtime social experience	28
1.3.1 The wider context of children’s social lives.....	28
1.3.2 Extension of the rationale based on Bioecological and Self- Determination theories	30
1.4 Review of relevant research: studies of school mealtime social experience and of peer relations in and out of context	31
1.4.1 Research on school mealtimes.....	31
1.4.2 Research on children’s peer relations out of context	32
1.4.3 Research on children’s peer relations in context.....	34
1.5 Implications of the literature review: the need for a close-up observational approach to the study of school mealtime social experience	35
1.5.1 Examining process in context.....	35
1.5.2 Examining the connection between school mealtime social experience, peer relationships and adjustment	36
1.6 Design and aims of the study and research questions	37
1.7 A note on format in subsequent chapters	38

Chapter 2	Rationale for a study of children’s informal school mealtime social experience: the wider context of children’s social lives and a psychological theory model.....	39
2.1	Chapter overview and precis of rationale for the study	39
2.2	School Mealtimes in the wider context of children’s social lives	41
2.2.1	Increased structuring of children’s lives and the erosion of open settings	41
2.2.2	Opportunity to spend time in open settings and indicators of well-being	43
2.3	Theoretical basis for understanding open school mealtimes as valuable contexts for children’s social experience with peers	46
2.3.1	The person (P): autonomous peer relationships as developmental outcome and developmental driver of school mealtime interactions	46
2.3.2	Context (C): The ‘autonomy supportive’ school mealtime context enabling relationship and social development	48
2.3.3	Process (P) and Time (T): Mealtime interaction with peers as developmental process for peer relationships and social competence	51
2.4	Summary: a PPCT framework to guide critical review of research relevant to the study of school mealtime social experience	52
2.4.1	The framework	52
2.4.2	A note on children’s age	56
Chapter 3	Review of research relevant to children’s school mealtime social experience with peers	57
3.1	Chapter overview and precis of literature reviewed	57
3.2	What is known about children’s school mealtime social experience and its connection to peer relationships and adjustment?	60
3.2.1	Quantitative studies of English school mealtime interventions: lacking focus on social interaction and process	60

3.2.2	Studies of social aspects of English school mealtimes: focusing on the school mealtime context	61
3.2.3	Studies of school mealtime social experience: close-up studies of potential proximal processes and peer relationships	64
3.2.4	Mealtime specific peer groups: an association with one type of peer experience	69
3.2.5	Testing ‘the magic’ of mealtimes: indications from quantitative family mealtime research using distant and close-up measures.....	70
3.2.6	Implications of school (and family) mealtime research	71
3.3	Findings and research methods from the study of children’s peer relations with relevance for understanding the value of school mealtime social experience	72
3.3.1	Associations between social behaviours, peer relationships and adjustment: a static view of the individual and neglect of process... ..	72
3.3.2	Models of dynamic links between the child, moment-by-moment peer interaction and peer relationships	76
3.3.3	Focusing on social process in children’s interaction: dynamic connections between children’s peer relationships, everyday interactions and adjustment	78
3.3.4	Defining context-relevant peer relationships	83
3.3.5	The connection of mealtime peer relationships and social experience to aspects of child adjustment relevant to informal school and beyond	86
3.3.6	Implications of peer relations research.....	89
3.4	Findings and research methods from the study of children’s peer relations in school contexts with relevance for understanding the value of school mealtime social experience	90
3.4.1	The relevant peer relationships for the context: an example of social network analysis from breaktime research.....	90

3.4.2	School contexts: affording differential opportunities for peer interaction	92
3.4.3	Similarity and difference between playground and mealtime interaction: form and content of informal social experience with peers	95
3.4.4	Implications of peer relations research in school contexts.....	98
3.5	Synthesis of the literature review: relevance of existing research for a study of children’s informal school mealtime social experience	99
3.5.1	Context: school mealtimes as a specific social context for peer relations.....	100
3.5.2	The person: a black box model of mealtime social experience	101
3.5.3	Person with process (in or out of context).....	102
3.6	Aim and research contribution of the study and research questions	103
Chapter 4	Methodology	107
4.1	Chapter overview and precis of methodological issues.....	107
4.2	Design and overview of a mixed methods observational study of children’s school mealtime social experience	108
4.3	A realist standpoint	111
4.3.1	The use of mixed research methods: complementarity and causation	111
4.3.2	Constructed data and approaches to validity	113
4.3.3	The possibility of understanding meanings of mealtime social experience for the non-participant observer	115
4.4	Regarding conceptualisation of peer relationships, interactions, school mealtime groups and adjustment measures	116
4.4.1	Multidimensional peer relationships and interactions as separate but related phenomena	116
4.4.2	Regarding children’s school mealtime groups	118
4.4.3	Regarding measures of school adjustment	119

Chapter 5	Phase 1 Methods	120
5.1	Chapter overview	120
5.2	Phase 1 sample and consent	122
5.2.1	Recruitment of schools and initial sample	122
5.2.2	Consent for participation and final Phase 1 sample	125
5.3	Methods for systematic observation of children’s peer interactions during school mealtimes	126
5.3.1	Introduction	126
5.3.2	Development of the systematic observation system	127
5.3.3	Final procedures and total numbers of observations	137
5.3.4	Validity of the systematic observations: inter-observer reliabilities	139
5.4	Analysis of systematic observation data	142
5.4.1	Observation- and child-level datasets	142
5.4.2	Observation-level mealtime variables and analysis; and analysis of qualitative notes	142
5.4.3	Child-level mealtime variables and analyses	145
5.5	Questionnaire measures of children’s peer relationships	146
5.5.1	Overview, piloting and administration of the questionnaire	146
5.5.2	Materials and procedure	146
5.5.3	Peer acceptance and rejection	147
5.5.4	Best Friendships	148
5.5.5	Friendship Quality	149
5.5.6	Predictions and multiple regression models for testing associations of peer relationships with mealtime interaction/engagement	151
5.6	Questionnaire measures of children’s school and mealtime liking	153
5.6.1	School liking scales and reliabilities	153

5.6.2	Multiple regression models for testing associations of mealtime interactions/engagement and peer relationships with school liking variables.....	157
Chapter 6	Phase 1 Findings	159
6.1	Chapter overview and precis of findings.....	159
6.2	Phase 1 findings about the nature of children’s mealtime interactions.....	162
6.2.1	Extent of interaction: school mealtimes as social context?	162
6.2.2	How many peers (and adults) did children spend mealtimes with and who were they?	167
6.2.3	How did children interact? Characteristics of interaction and types of activity	172
6.3	Extent of association between mealtime interactions and peer relationships.....	177
6.3.1	Overview of outcome and predictor variables.....	177
6.3.2	Friendship variables as predictors of mealtime interactions/engagement.....	178
6.3.3	Wider peer group relationship variables as predictors of mealtime interactions/engagement.....	184
6.4	Extent of association between mealtime interactions and peer relationships with adjustment to school.....	186
6.4.1	Overview of outcome and predictor variables.....	186
6.4.2	Descriptive statistics and bivariate correlations between variables	186
Chapter 7	Phase 2 Methods	188
7.1	Chapter overview	188
7.2	Social network analysis for identification of mealtime groups and relevant peer relationships.....	189
7.2.1	Identification of members of eating time groups	189
7.2.2	Relationships between group members	191
7.3	Video recordings of mealtime interactions.....	193

7.3.1	Phase 2 sample and consent	193
7.3.2	Recording procedures	194
7.3.3	Timing and number of recordings	195
7.3.4	Impact of the recording process and validity of the footage	195
7.4	Data analysis: drawing on Grounded Theory methods to examine social processes	196
7.4.1	First watching, identification and selection of episodes for close analysis	199
7.4.2	Transcription, line-by-line coding, writing memos and constant comparisons through the lens of the mealtime groups.....	203
7.4.3	Ongoing development of a framework of focused/theoretical codes and their connection to peer relationships.....	207
7.4.4	Mealtime topics of talk and activities as part of the analysis	208
7.4.5	Trustworthiness or validity of the analysis.....	208
Chapter 8a Phase 2 findings: Children’s mealtime groups and peer relationships within them..		
		211
8a.1	Chapter overview and precis of findings	211
8a.2	Overview and explanation of the mealtime group information represented in the sociograms.....	212
8a.3	Features of the mealtime groups.....	217
8a.3.1	Size.....	217
8a.3.2	Gender	217
8a.3.3	Mixing across Year 5 classes.....	218
8a.3.4	Best friendships	218
8a.3.5	Peer acceptance	219
Chapter 8b Phase 2 findings: Relational social processes in mealtime peer interactions.....		
		220
8b.1	Chapter overview and precis of findings.....	220
8b.2	Overview of the mealtime relational processes	223

8b.2.1	The whole set of mealtime social processes.....	223
8b.2.2	Relational tendencies of mealtime processes: <i>Moving towards</i> or <i>Moving away</i>	224
8b.2.3	<i>Symmetrical</i> and <i>Asymmetrical</i> social processes	225
8b.2.4	'Sets' of mealtime processes	226
8b.3	Descriptions of the mealtime social processes and their connections to children's peer relationships	227
8b.3.1	Set 1 relational processes: <i>Involving</i> versus <i>Marginalising</i>	227
8b.3.2	Set 2 relational processes: <i>Developing group homogeneity</i> , <i>Resisting homogeneity</i> and <i>Alienating with difference</i>	232
8b.3.3	Set 3 relational processes: <i>Mutual responsiveness</i> , <i>Effortful tuning</i> and <i>Disregarding</i>	239
8b.3.4	Set 4 relational processes: Targeting of an individual from <i>Affiliative teasing</i> to <i>Expelling from the group</i>	247
8b.3.5	Set 5 relational processes: <i>Asserting the self</i> meets acceptance or resistance.....	255
8b.3.6	Set 6 relational processes: <i>Affiliating</i> and <i>Affiliating meets resistance</i>	260
8b.4	Drawing together findings about associations between peer relationship types and mealtime relational processes.....	264
8b.4.1	Group members involving or being involved and <i>Moving towards</i> .266	
8b.4.2	Best friends and other individuals <i>Moving towards</i>	267
8b.4.3	Exclusive dimensions of group homogeneity and intimacy between individuals.....	267
8b.4.4	Alienation and resistance between best friends and other individuals	268
8b.4.5	Resistance and power struggles within groups.....	269
8b.4.6	The double binds facing children in a weak social position	270

Chapter 8c	Phase 2 findings: mealtime topics of talk and activities	272
8c.1	Chapter overview and precis of findings	272
8c.2	Reproducing and constructing peer culture	273
8c.3	Sharing and interpreting of information about their joint or separate lives	275
8c.4	Negotiating mealtime rules and organisation	276
Chapter 8d	Drawing together findings from Phase 2 of the study and highlighting how they complement those from Phase 1	277
8d.1	Chapter overview and precis.....	277
8d.2	RQ1: What is the nature of children’s informal peer interaction during school mealtimes?	278
8d.2.1	Topics of talk and activities: peer culture, joint and personal lives, the mealtime context as material for children’s mealtime interaction with peers	278
8d.2.2	Relational processes embedded in mealtime interactions.....	279
8d.3	RQ3: How are children’s informal eating time interactions with peers associated with their friendships and relationships with the wider peer group?.....	280
8d.3.1	Peer relationships within mealtime groups	281
8d.3.2	Connections between mealtime relational processes and children’s peer relationships within their mealtime groups.....	281
Chapter 9	Discussion.....	284
9.1	Chapter overview and precis of points discussed	284
9.2	Revisiting the aim and rationale for the study.....	285
9.3	School mealtimes as children’s social spaces	288
9.4	Peer relations in the school mealtime context 1: The extent of connection between peer relationships and mealtime interactions.....	290
9.4.1	Broad quantitative evidence of a connection between peer relationships and mealtime interactions.....	290
9.4.2	Peer acceptance as a stronger predictor of mealtime interactions than friendship.....	291

9.5	Peer relations in the school mealtime context 2: How mealtime interactions are connected to peer relationships	296
9.5.1	Overarching features of mealtime relational processes: moving towards and moving away.....	296
9.5.2	Overarching features of mealtime relational processes: symmetry, asymmetry and the role of resistance.....	298
9.5.3	Moving towards symmetrically: examples of <i>Being mutually responsive</i>	300
9.5.4	Moving apart asymmetrically or symmetrically: examples of resisting or giving way to significant social threat.....	305
9.6	School mealtimes as contexts for peer relationships	308
9.6.1	Influence of mealtimes on broad patterns of interaction, group size and structure	309
9.6.2	Influence of mealtime on content of conversation and activity.....	310
9.6.3	An autonomy supportive context? Individual variation in school mealtime social engagement	311
9.7	School mealtimes as contexts for adjustment to school and for social learning and development	313
9.7.1	Revisiting the proposition that school mealtime social experience is important for current and future well-being and optimal functioning	313
9.7.2	Lack of association between school mealtime interactions, peer relationships and school liking	314
9.7.3	School mealtime social experience as an opportunity for social learning and development	314
9.7.4	Individual variation in mealtime opportunities for positive social learning and the need to support autonomous mealtime social experience	316
9.8	Strengths and limitations of the study.....	317

9.8.1	Mixed observation methods in the mealtime context.....	317
9.8.2	Psychological measures of peer relationships	318
9.8.3	Cross sectional design	319
9.8.4	Gender and cultural diversity	319
9.9	Suggested areas for future research	320
9.9.1	Mealtime relational processes	320
9.9.2	Mealtime peer groups	321
9.9.3	Context specificity and connection in children’s peer relations	321
9.10	Conclusions.....	322
9.10.1	Contribution of research approach to the study of school mealtime social experience and to the study of children’s peer relations	322
9.10.2	School mealtimes as a rich, engaging context for peer relations and their study.....	323
9.10.3	Contexts for some children to learn conversational competences for developing and maintaining peer relationships.....	323
9.10.4	Implications of the study for organisation of school mealtimes.....	324
References		326
Appendices		343
	Appendix 1: Section 8 of UCL Institute of Education Ethics Form addressing ethical issues related to this research.....	343
	Appendix 2: Head teacher approach letter	348
	Appendix 3: First letter to all Year 5 parents explaining study.....	349
	Appendix 4: Study information sheet for school staff (two pages).....	350
	Appendix 5: Coding manual for school mealtime systematic observations	352
	Appendix 6: Overview sheet of school mealtime systematic observation codes	358
	Appendix 7a: Questionnaire Section 1 – Peer acceptance.....	359
	Appendix 7b: Questionnaire Section 2 - Best friend nomination.....	360
	Appendix 7c: Instructions for completing Questionnaire Sections 1 and 2.....	361

Appendix 7d: Demonstration Sheet 1 for use with instructions on questionnaire completion.....	363
Appendix 8a: Questionnaire Section 3 – School liking	364
Appendix 8b: Questionnaire Section 4 – Best friendship quality	365
Appendix 8c: Instructions for completing Questionnaire Sections 3 and 4	366
Appendix 8d: Demonstration Sheets 2 and 3 for use with instructions on questionnaire completion	368
Appendix 9: Full lists of interaction content recorded in qualitative notes attached to systematic observations.....	370
Appendix 10: Letter to selected Year 5 parents requesting consent for videoing of focus children	374
Appendix 11: Letter to all Year 5 parents explaining school mealtime videoing ..	375
Appendix 12: Elements from Charmaz’s (2006) Grounded Theory qualitative analysis guidelines used (or not) for analysis of video extracts undertaken in this study as explained in Chapter 7	376
Appendix 13: Complete logs of school mealtime video episodes for Girls Pair 1 and Boys Pair 1	379
Appendix 14: List of all school mealtime video episodes selected for analysis with reasons for selection	384

List of Tables

Table 4-1: Overview of methods used to study children’s informal mealtime interactions, peer relationships and school adjustment	110
Table 5-1: Overview of Phase 1 methods used to study children’s mealtime interactions, peer relationships and school liking	121
Table 5-2: Information on type, size and demographic characteristics ^a of schools involved in the study	123
Table 5-3: Size and gender composition of Year 5 focus and non-focus classes.....	124
Table 5-4: Total numbers of children observed and who completed all questionnaire sections in focus and other Year 5 classes	126
Table 5-5: School mealtime systematic observation coding categories.....	129
Table 5-6: Final numbers of systematic observations	139
Table 5-7: Inter- and intra-observer reliabilities for school mealtime systematic observation categories.....	141
Table 5-8: School mealtime systematic observation coding categories with corresponding observation-level variables.....	143
Table 5-9: School mealtime systematic observation coding categories with corresponding child-level variables.....	145
Table 5-10: Sub-scales to measure the quality of children’s best friendships taken from the Friendship Qualities Scale (Bukowski et al., 1994).....	150
Table 5-11: Structure Matrix showing factor loadings for the three component solution for the <i>School and Eating Time Liking</i> section of the questionnaire.	155
Table 5-12: Component correlation matrix for three components derived from the <i>School and Eating Time Liking</i> section of the questionnaire.	156
Table 6-1: Main engagement level by <i>Active group present</i> crosstabulation	163
Table 6-2: Crosstabulation of school mealtime engagement level and eating	166

Table 6-3: Crosstabulation of school mealtime <i>Active group present</i> and eating...	166
Table 6-4: Mean percentage of children within seated and active groups who were own gender and other gender peers	170
Table 6-5: How many of seated group were from own Year 5 Class, other Year 5 class and other year groups?	171
Table 6-6: Additional characteristics of interaction.....	173
Table 6-7: Type of activity	174
Table 6-8: Means, standard deviations and bivariate correlations for school mealtime interaction variables and peer relationship variables.....	179
Table 6-9: Multiple regression analysis of <i>Number of best friendships</i> and peer acceptance variables as predictors of <i>Percentage social engagement</i> (%SE).....	180
Table 6-10: Multiple regression analysis of <i>Number of best friendships</i> and peer acceptance variables as predictors of <i>Percentage talk exchange</i> (%TX)	180
Table 6-11: Multiple regression analysis of <i>Number of best friendships</i> and friendship quality (FQ) variables as predictors of <i>Percentage social engagement</i> (%SE).....	181
Table 6-12: Multiple regression analysis of <i>Number of best friendships</i> and friendship quality (FQ) variables as predictors of <i>Percentage talk exchange</i> (%TX)	182
Table 6-13: Multiple regression analysis of friendship quality (FQ) and peer acceptance variables as predictors of <i>Percentage social engagement</i> (%SE).....	183
Table 6-14: Multiple regression analysis of friendship quality (FQ) and peer acceptance variables as predictors of <i>Percentage talk exchange</i> (%TX)	184

Table 6-15: Means, standard deviations and bivariate correlations for school liking variables, mealtime interaction/engagement and peer relationship variables.....	187
Table 7-1: Overview of Phase 2 methods used to study children’s school mealtime interactions and peer relationships	189
Table 7-2: Episode log of day 2 video recording of Girls 1.....	200
Table 7-3: Selected episodes - with reasons - for transcription and analysis for Girls 1 and Boys 1	202
Table 8a-1: Key to information contained in school mealtime sociograms for focus children.....	213
Table 8b-1: School mealtime processes categorised in terms of <i>Moving towards</i> or <i>Moving away</i> and in terms of <i>Symmetry</i> and <i>Asymmetry</i>	224
Table 8b-2: Overarching categories: <i>Symmetry</i> and <i>Asymmetry</i> in <i>Moving towards</i> one another and <i>Moving away</i>	225
Table 8b-3: Overview of Set 1 relational processes <i>Involving</i> versus <i>Marginalising</i>	228
Table 8b-4: Overview of Set 2 relational processes: <i>Developing group homogeneity</i> , <i>Resisting homogeneity</i> and <i>Alienating with difference</i>	233
Table 8b-5: Overview of Set 3 relational processes: <i>Mutual responsiveness</i> , <i>Effortful tuning</i> and <i>Disregarding</i>	240
Table 8b-6: Overview of Set 4 relational processes: <i>Affiliative teasing</i> , <i>Targeting meets resistance</i> , <i>Targeted teasing</i> , <i>Targeting to expel from a group</i> .	248
Table 8b-7: Overview of Set 5 relational processes: <i>Asserting the self</i> is accepted or meets resistance	256
Table 8b-8: Overview of Set 6 relational processes: <i>Affiliating</i> and <i>Resistance to affiliating</i>	261
Table 8b-9: School mealtime social processes corresponding to relationship types	265

List of Figures

Figure 2-1: Representation of the school mealtime developmental microsystem based on Self-Determination and Bioecological Theories	54
Figure 3-1: Simplified representation of the school mealtime developmental microsystem based on Self-Determination and Bioecological Theories	75
Figure 5-1: Overview of interval time-sampling for systematic observations.....	134
Figure 5-2: Five point peer rating scale used by children to indicate ' <i>How much you like to be with each person in Year 5</i> '	148
Figure 6-1: Histogram showing distribution of children's <i>Percentage social engagement</i>	164
Figure 6-2: Histogram showing distribution of children's <i>Percentage active group present</i>	164
Figure 6-3: Histogram showing distribution of children's <i>Percentage eating</i>	165
Figure 6-4: Number of others seated with child	168
Figure 6-5: Number of others in active interaction groups	169
Figure 6-6: Mean number of others in child's active interaction groups	169
Figure 6-7: Mean number of others seated with child	170
Figure 6-8: Mode of mealtime interaction.....	172
Figure 7-1: Example sociogram of one mealtime group.....	192
Figure 8a-1: Sociogram showing relationships between children in Boys Pair 1/School 1 (Gabe and Kieron) and Boys Pair 2 (Eddie and Lee) mealtime group	213
Figure 8a-2: Sociogram showing relationships between children in Girls Pair 1 /School 1 (Natalie and Mimi) mealtime group.....	215
Figure 8a-3: Sociogram showing relationships between children in Girls Pair 2/School 1 (Monique and Chloe) mealtime group.....	215

Figure 8a-4: Sociogram showing relationships between children in Boys Pair 3/School
2 (Vinny and Barney) mealtime group 216

Figure 8a-5: Sociogram showing relationships between children in Girls Pair 3/School
2 (Ana and Thea) mealtime group 216

Figure 8a-6: Sociogram showing relationships between children in Girls Pair 4/School
2 (Lydia and Martha) mealtime group 217

Figure 9-1: Representation of the school mealtime developmental microsystem
based on Bioecological and Self-Determination Theories 287

List of Transcript Extracts

Extract 8b-1: 'I refuse to eat my own sisters' - Girls Pair 2: Monique and Chloe	229
Extract 8b-2: 'I refuse to eat my own sisters' continued - Girls Pair 2: Monique and Chloe	230
Extract 8b-3: 'I refuse to eat my own sisters' continued – Girls Pair 2: Monique and Chloe	231
Extract 8b-4: 'You make dabbing old' - Boys Pair 2, Eddie and Lee.....	234
Extract 8b-5: Pokemon Cards - Boys Pair 2: Eddie and Lee	235
Extract 8b-6: 'Dangerous!' - Boys Pair 1: Kieron and Gabe.....	236
Extract 8b-7: 'It's rude to ask' - Girls Pair 4: Lydia and Martha	238
Extract 8b-8: The 'mad smacky dab' - Girls Pair 2: Chloe and Monique.....	239
Extract 8b-9: Hand actions - Girls Pair 1: Natalie and Mimi.....	241
Extract 8b-10: The birthday party - Girls 2, Day 4: Chloe and Monique sitting with Hope, Karl, Afra and Mimi	243
Extract 8b-11: 'I don't eat fish' - Boys 1 and 2, Day 4: Kieron and Gabe, Eddie and Lee sitting with Remy, Chris, William and Freddy.....	243
Extract 8b-12: Eggy McEggster - Boys Pair 3: Vinny and Barney	245
Extract 8b-13: 'Put your hands up if....' - Girls Pair 2: Chloe and Monique	246
Extract 8b-14: Chinese Whispers - Girls Pair 2, Day 2: Chloe and Monique.....	249
Extract 8b-15: Chinese Whispers continued - Girls Pair 2: Chloe and Monique.....	251
Extract 8b-16: The 'wearing the glasses' game continued - Girls Pair 3, Day 2: Thea and Ana.....	252
Extract 8b-17: Excluding Erin - Girls Pair 1: Natalie and Mimi	254
Extract 8b-18: Excluding Vik - Boys Pair 2: Eddie and Lee	254
Extract 8b-19: 'She just came and bolted' - Girls Pair 1: Mimi and Natalie.....	254
Extract 8b-20: Excluding Vik continued - Boys Pair 2: Eddie and Lee	255

Extract 8b-21: Clapping game continued - Girls Pair 1: Natalie and Mimi	257
Extract 8b-22: Famous Football Goals - Boys Pair 2: Eddie and Lee	258
Extract 8b-23: Sharing out the Fruit Winder - Girls Pair 3: Thea and Ana	259
Extract 8b-24: 'Moonbeam' - Girls Pair 4 - Lydia and Martha	262
Extract 8b-25: 'Moonbeam' continued - Girls 4, Day 1 - Lydia and Martha sitting with Maria, Alice and Flo	263
Extract 8b-26: 'I've been to Freddy's house' - Boys 1, Day 4 - Kieron and Gabe sitting with Eddie, Freddy, William, Chris, Remy and Lee	264

Chapter 1 Introduction to a study of school mealtime social experience

1.1 Focus and contribution of the study

This thesis presents an in-depth observational study of children's social experience with peers during informal school mealtimes. I have undertaken this research from a social-developmental psychology perspective, meaning that my focus is on understanding whether and how this context-specific social experience is important for the child's current and future social functioning. In particular, the aim of the study was to examine the significance of children's informal school mealtime social experience for their peer relationships and adjustment to school. Here, 'adjustment to school' refers both to a child's ability to engage in socially competent behaviours which are needed to make, maintain and otherwise navigate peer relationships in the lunchroom and beyond; and to an aspect of adjustment relevant to informal school social experience – specifically liking for school – which, in turn, is important for more formal aspects of school adjustment such as academic performance.

My study addresses a gap in research on school mealtimes as potentially important informal times for children to spend with peers. As such, I aim to encourage and enable school staff, food advisors and commentators, as well as researchers, to give fuller consideration to school mealtimes as children's social spaces rather than as nutritional events or opportunities for teaching. Implications relate to time which should be allowed for mealtimes, organisation of the lunchroom, freedom accorded to children and support necessary to enable them to benefit from mealtime social experience.

In addition, the study addresses a gap in psychological peer relations research by examining everyday, context-specific social processes which may explain the link between social behaviour and peer relationships. In doing so, it highlights the value of the school lunchroom as a site for the naturalistic study of children's social lives which has mainly, so far, been undertaken on the playground.

The research is focused on children in ‘middle childhood’, specifically those aged 9-10 years (Year 5 of primary school). This is an age when children spend more unsupervised time with peers than earlier in childhood, their interactions are more intense and complex, and peers become more important for children’s sense of identity (Adler & Adler, 1998; Gifford-Smith & Brownell, 2003; Rubin et al., 2010; Sullivan, 1953). They are therefore likely to be engaged in the type of relationship-relevant conversational interactions which are of key interest in this study.

1.2 Origins of the study: neglect of social aspects of children’s school mealtime experience

My interest in school mealtimes came about through working as a researcher on several projects (Baines & MacIntyre, 2019; Storey et al., 2011). These involved informal observations and interviews with children in relation to their mealtimes which they particularly valued as time to spend with friends. The intensity of the informal conversations between many of these children when eating was striking, as was the animated way they spoke about this social experience during interview. These seated, talk-focused interactions were different from the playground scene where children are often on the move; and different from the classroom where children are largely busy with adult orchestrated tasks. This highlighted the possibility that school mealtimes provide a distinctive and key school context for peer interactions, for experience of peer relationships and a powerful environment for social learning.

Yet, despite a high level of interest in school meals in the UK during the past two decades, their social dimension has largely been taken for granted. Instead, they have primarily been considered in public debate, by researchers and by school food advisors in relation to concerns about children’s health and learning-related behaviours. One main focus has been on the nutritional quality of school meals (e.g. Evans & Harper, 2009; Nelson, Lowes, & Hwang, 2007; Revill & Hill, 2005) and packed lunches (e.g. Batty & Wintour, 2013; Evans et al. 2016) in the context of concerns around childhood obesity and other health problems with efforts made to increase the uptake and intake of healthy school meals (e.g. Dimbleby & Vincent, 2013)

Moore, Tapper, & Murphy, 2010). Another focus has been on the access of poorer children and young people to nutritious school food (Rock, 2013) including through the introduction of universal free school meals at Key Stage 1 (Department for Education, 2014; Sellen et al., 2018) and in a context of rising food poverty in the UK (Lambie-Mumford & Sims, 2018). There are, of course, social dimensions to these issues and studies in these areas touch on social experience with peers. However, my review of the literature indicates the need for research with a main focus on the role of informal mealtime peer interaction in children's relationships, social functioning and development.

1.3 Summary of the rationale and empirical basis for a study of school mealtime social experience

In the remainder of this chapter, I summarise the rationale and empirical basis for the study and for the 'close-up' observational methods which are at its heart. These are discussed in detail in Chapters 2 and 3 of the thesis.

1.3.1 The wider context of children's social lives

I begin Chapter 2 by discussing evidence which highlights the importance of school mealtime social experience in terms of the current wider context of children's social lives in England. The term 'open setting' was originally applied to classrooms where children had autonomy in deciding who they sat with to work and to engage in extended periods of free interaction (e.g. see Schmuck & Schmuck, 2001). School mealtimes can also be conceptualised as open settings when, as is common, they are organised to allow children freedom to sit with who they want and to talk about what they want. In such cases, these times afford children the opportunity to socialise with peers relatively freely of adult control. In general, such opportunities are becoming increasingly rare in children's social lives both in and out of school.

This is evident in a combination of factors: the ubiquity of classrooms where there is close control of child interaction by the teacher (Howe, 2010) as well as separation of children into attainment groups (Hargreaves et al., 2021); recent marked reductions in the length of school breaktimes or frequency with which children meet

friends outside school (Baines & Blatchford, 2019); reduction of time children spend free of adult supervision in their neighbourhoods (Shaw et al., 2012) and on their journeys to and from school (Baines & Blatchford, 2012). And, also, in examples of adult structuring of school mealtimes themselves. This might involve designating places for children to sit (Hart, 2016), adults sitting with children to guide interaction (Pike, 2010) or, in extreme cases, banning talking altogether (e.g. Rahim et al., 2012). A complex web of reasons account for this erosion of children's free time. They include an adult belief in the value of teaching children good manners and conversational skills (Elliott & Hore, 2016; Daniel & Gustafsson, 2010); an increase in teaching and learning time at school and desire to eliminate breaktime problems and bullying; children's increased at-home usage of social media (Baines & Blatchford, 2019); and parental concerns about child safety (Gleave & Cole-Hamilton, 2012).

Regardless of the reason, the reduction creates an imperative for understanding the value of remaining opportunities for children to socialise freely including during open, informal school mealtimes. Firstly, it is at odds with children's priority to spend free time with friends (Baines & Blatchford, 2019; Daniel & Gustafsson, 2010). There are also indications that constraints on children's social lives may hinder their social development and are implicated in a decline in their mental health and well-being (Gill, 2007; Gray, 2015; Sunderland, 2019). Large scale studies suggest links between children's well-being and both their freedom to spend time with friends and satisfaction with friends (Abdallah et al., 2014; The Children's Society, 2018). However, these kinds of large-scale studies are too general to identify mechanisms which would explain why this is the case or what kind of time spent with friends may be important for their relationships and well-being. Research focused more closely on interaction-in-context, in settings like the school mealtime, is likely to be of more value in doing so.

1.3.2 Extension of the rationale based on Bioecological and Self-Determination theories

In the second part of Chapter 2, I extend the rationale for my study by drawing on psychological theory which supports central propositions of this thesis highlighted by my discussion above of the wider context of children's social lives.

Self-Determination Theory (SDT) (Deci & Ryan, 2014; Ryan & Deci, 2000) underlines why autonomous mealtime social experience with peers may be important for children by potentially satisfying fundamental psychological needs necessary for children's well-being and optimal functioning (together termed here as 'adjustment'). These mutually reinforcing needs are for '*sense of autonomy*', '*sense of connectedness*' and '*sense of (social) competence*'. They may be addressed when children are given freedom to interact with peers and associated opportunities to develop and maintain peer relationships which simultaneously involve practice and development of the social skills and understanding which underpin those relationships.

Bioecological Theory (Bronfenbrenner & Morris, 1998) indicates that the developmental social processes which are embedded in this kind of school mealtime social experience will, to some extent, be context-specific. Development will be driven by '*proximal processes*': repeated everyday interactions between a child, other people and other features (objects and symbols) of a specific context. As such, mealtime companions, furniture, food, lunchroom rules and systems, and so on may impact on the form of proximal processes in the school mealtime, rendering it a developmental microsystem which is distinct although perhaps connected to other school and more distant contexts. This means that full understanding of how informal school mealtime social experience may be significant for children's peer relationships and social development can only be achieved by the study of peer interactions in that context.

At the end of Chapter 2, I integrate these elements of SDT and Bioecological Theory into a single model which provides a framework for understanding the potential value of autonomous interaction with peers during school mealtimes for their peer

relationships and adjustment. This is used to inform my subsequent review of literature in Chapter 3.

1.4 Review of relevant research: studies of school mealtime social experience, and of peer relations in and out of context

In Chapter 3, I review literature in three areas to assess how far researchers have already examined the content and value of children's contextualised school mealtime interaction with peers for their current and future social functioning and for their adjustment.

1.4.1 Research on school mealtimes

In the first part of the literature review, I examine how far research on school mealtimes has focused on children's social experience and on its implications for the individual in terms of their peer relationships and other outcomes. There have been several quantitative studies of school mealtime interventions in England. Two have led authors to speculate that post-intervention changes in on-task behaviour or achievement may be due to the impact of the intervention on social interaction (Storey et al., 2011 ; Kitchen et al., 2013). However, they provide no evidence of such social processes. A number of qualitative studies in English schools (Daniel & Gustafsson, 2010; Hart, 2016; Pike, 2008; 2010; Sellen et al., 2018) have closely examined the school mealtime context showing how government policy and local values have played out in adult organisation of lunchrooms. Even in more informal lunchrooms, adult organisation places restrictions on mealtime socialising which children often dislike (Daniel and Gustafsson, 2010). What these studies do not do is to focus in detail on the interaction between children which takes place in the informal social space which does exist within the mealtime setting (e.g. Golding & Blatchford, in preparation).

Another group of observational (mainly ethnographic) studies from outside the UK do focus on this interaction (Andersen et al., 2015; Eder et al., 1995; Nukaga, 2008; Thorne, 2005). They identify social processes embedded in interactions: including or excluding others from sitting with an individual or group; sharing or exchanging of

food and within forms of conversation (e.g. the *'insult routines'*, *'collaborative teasing'*, *'joint storytelling'* and *'re-enactment of films or TV'* identified by Eder and colleagues). Together these studies illustrate the richness and complexity of mealtime interactions. However, while these studies do make some reference to the impact of this experience on status relationships, they are sociological and have a primary focus on the connection of school mealtime interactions to class, gender and ethnicity rather than on implications for individual peer relationships, social development and adjustment. Their emphasis is also on negative forms and outcomes of mealtime interactions.

1.4.2 Research on children's peer relations out of context

Next, I review literature from the field of children's peer relations. Unlike school mealtime research, a large body of work in the field of children's peer relations has examined and found associations between children's social behaviour (e.g. aggression, affirmation), their peer relationships (especially friendships and peer group acceptance) and individual adjustment (e.g. achievement, attitudes to school) (Gifford-Smith & Brownell, 2003; Ryan & Ladd, 2012). These findings add weight to the suggestion that there will be implications for the individual of an intensely social school mealtime where different kinds of social behaviours are enacted. However, typically used global questionnaire measures can give the impression that behaviours are fixed qualities of the individual and allow nothing to be said about the social processes embedded in day-to-day interactions which may explain their associations with peer relationships and adjustment (Parker et al., 2015; Blatchford et al., 2016).

A small number of researchers have placed greater emphasis on these relational social processes. Several theoretical models present dynamic interactions as distinct from child characteristics and from peer relationships yet closely interrelated with them (influencing them yet constrained by them) (Levinger & Levinger, 1986; Parker et al., 2015). Some empirical examples show the value of 'close up' qualitative and quantitative observation methods for identifying social processes (e.g. victimisation, deviancy training, coercion, humour usage, gossip) and how they both influence and are influenced by peer relationships and/or adjustment outcomes (Adler & Adler,

1998; Dishion & Tipsord, 2011; Huuki et al., 2010; Parker & Gottman, 1989). However, these studies do not attend to context and so can say nothing about the possible specific forms and implications of these interactions and processes in the mealtime setting. And as with school mealtime research, there is a disproportionate focus on negative dimensions of social interaction in this peer relations literature.

At the same time, peer relations research provides useful conceptualisations of children's peer relationships which are likely to influence and be influenced by their school mealtime experience. Peer relationships are multi-dimensional and children have to negotiate '*multiple, embedded relationships within the peer network*' (Gifford-Smith & Brownell, 2003, pp.270-271). These include friendships with variations in quality (Bagwell & Bukowski, 2018), peer acceptance by the wider peer group (Cillessen & Bukowski, 2019) and 'perceived popularity'(Cillessen & van den Berg, 2012). Some informal, child-determined social networks may be specific to the mealtime context to some degree (Baines & MacIntyre, 2019) with particular influence on their social experience (Craig et al. 2016). On the other hand, the influence of teacher-determined classroom groups (Howe, 2010) may spill over into mealtime social experience where whole classes of children are often eating at the same time.

This field of research also indicates that school 'adjustment', along with broader well-being and optimal functioning referred to in Social Determination Theory, is a complex construct. Optimal functioning at school will include the ability to engage in socially competent behaviour needed to make, maintain and otherwise navigate peer relationships, including in the lunchroom. Ladd et al. (2000) note various categories of adjustment such as perceptions (e.g. school liking); affect (e.g. loneliness); involvement (e.g. engagement, absences); performance (e.g. grades). Researchers also cite evidence of associations between various aspects of peer relationships and different forms of adjustment (see, for example, Altermatt and Pomerantz, 2003; Ladd et al., 2000., Maunder & Monks, 2019). Boulton et al. (2011) argue that informal experience with peers will be most closely connected to aspects of functioning that are affective or attitudinal which can be independent of academic functioning. With this in mind, they provide evidence of a connection between peer relationships and

school liking. However, since different types of adjustment are interconnected (Ireson & Hallam, 2005; Reschly & Christenson, 2012), it may be that any impact of school mealtime social experience on affective functioning will ultimately also have implications for children's adjustment to more formal aspects of schooling such as classroom learning.

1.4.3 Research on children's peer relations in context

Finally, I review a much smaller body of research which has been undertaken on children's peer relations in specific school contexts: the classroom and playground as well as the school mealtime. Quantitative research (Golding & Blatchford, in preparation) indicates that, given the tightly teacher-controlled nature of the typical classroom (Howe, 2010), and the prevalence of play and game playing in the playground (Baines & Blatchford, 2011), that open school mealtimes may offer many children a unique opportunity for informal conversational socialising with peers. This may particularly be the case for boys who spend more time playing on the playground than girls. Older research (Hallinan, 1976; 1979) compared open classroom settings to traditional classrooms (with substantial child determined interaction versus more adult control). This indicates there may be an impact on relationships of the 'real' experience with peers and less teacher orchestration of relationships in the open classroom setting. In open classrooms, relationships were more dispersed (less focused on a few high-status individuals) but there may be more social isolates and fewer cross-gender relationships. There could be similar effects of real experience with peers during the school mealtime. However, like school mealtime and peer relations studies which have not examined social processes, this research by Hallinan does not provide evidence of the mechanisms at work.

Qualitative playground research has focused more closely on children's 'real' experience with peers, although mainly as it is enacted within play and games. Studies which examine 'teasing' or 'demeaning' (Blatchford, 1998; Goodwin, 2006) provide examples of one social process which is likely to have equivalent, but perhaps also somewhat different forms and functions, within mealtime conversation. This research provides evidence that this context-specific teasing serves different social

purposes (e.g. *'showing of sharpness in social discourse, and jostling for status'*) involves social skill and understanding, and has varied implications for peer relationships (e.g. *'to strengthen group cohesion, sometimes by taunting a scapegoat'* Blatchford, 1998, p.161). Purposes and outcomes depend on existing relationships, skill of the teaser and, also, reaction by the target.

Involvement in teasing is, therefore, relevant to satisfaction (or not) of individual psychological needs for sense of relatedness, of social competence so for children's adjustment. Breaktime researchers note that engaging in such real experience with peers also offers children opportunities to learn how to negotiate relationships and so has implications for their future as well as their current social functioning (Blatchford & Baines, 2010; Sluckin 1981). This research supports the suggestion that examining children's informal everyday peer interactions in-action and in-context can shed light on the value (or otherwise) of time spent in that context, for individual relationships and social development.

1.5 Implications of the literature review: the need for a close-up observational approach to the study of school mealtime social experience

At the end of Chapter 3, I bring together key strands from the literature review, including methodological issues, in relation to elements of my theoretical framework from Chapter 2. This synthesis, summarised below, makes the final case for a 'close-up' observational study of school mealtime social experience using psychological measures of peer relationships.

1.5.1 Examining process in context

Examples from research of school mealtimes, of children's peer relations and of peer relationships in open versus traditional classrooms, demonstrate the limitations of studies using distant global questionnaire measures. Such studies provide little insight into specific social processes (Bronfenbrenner's proximal processes - Bronfenbrenner & Morris, 1998) which may connect dynamic everyday social

experience to current peer relationships, and which may also involve social learning which has implications for future social functioning.

By contrast, examples of observational research show how observation methods can achieve such insight. Researchers interested in peer relations, playground and also family mealtimes (Bohanek et al. 2009; Dishion et al., 1996; Goodwin, 2006), have shown the value of both qualitative and quantitative video analyses for examining processes (including those with context-specific forms) embedded in episodes of interaction. Bronfenbrenner (Bronfenbrenner & Morris, 1998) has termed these kinds of studies, focusing on detailed description of content and functioning during episodes of a proximal process, as '*microtime*' studies. In these studies, researchers also examine connections of these interactions with aspects of peer relationships or individual adjustment. In addition, systematic observation, used to code interactions according to predetermined categories, has been used by breacktime researchers (Blatchford et al., 2003) to identify broad quantitative patterns of interaction. Bronfenbrenner has termed these kind of studies, focusing on patterns over weeks and months, as '*mesotime*' studies.

As detailed in subsequent Chapters, I used a combination of these micro- and mesotime approaches, and of qualitative and quantitative methods to make an in-depth study of children's social experience – both positive and negative - in the school mealtime context. In doing so, my study contributes to peer relations research which has often neglected the study of children's everyday social experience in-action and over-emphasised negative aspects of this experience.

1.5.2 Examining the connection between school mealtime social experience, peer relationships and adjustment

At the same time, my study addresses a gap in school mealtime research. Researchers have examined the lunchroom context in England but neglected the study of children's mealtime interaction with peers. Ethnographers outside the UK have examined mealtime specific social processes (again with an emphasis on negative social experience) but neglected to investigate implications for the individual's relationships and adjustment. As such, my study makes a novel

contribution by using psychological measures of peer relationships and adjustment in relation to informal school mealtime social experience.

I used conceptualisations and measures of multifaceted peer relationships including friendships (Berndt & McCandless, 2011); friendship quality (Bukowski et al., 1994); acceptance within the peer group (Cillessen, 2011) which have been developed by psychological peer relations researchers. In addition, I used methods of social network analysis developed by breaktime researchers (Baines & Blatchford, 2009) to identify the mealtime peer group which is likely to be most relevant to social experience in that context. This allowed me to examine the connection between informal mealtime social experience and peer relationships. In turn, and in line with indications from Self-Determination Theory (Deci & Ryan, 2014; Ryan & Deci, 2000), I examined the connection of mealtime social experience and peer relationships with a measure of wider adjustment to school, school liking. As an affective/attitudinal phenomena, school liking has been proposed as a form of school adjustment which can be directly connected to informal aspects of schooling independently of formal academic experience (Boulton et al., 2011). Since varied dimensions of adjustment are interconnected, it may nevertheless have implications for that academic experience (Ireson and Hallam, 2005; Reschly and Christenson, 2012).

1.6 Design and aims of the study and research questions

At the end of the literature review in Chapter 3, I set out my research aim and questions which focus on the gaps in understanding I have highlighted in relation to 1. School mealtimes as potentially important contexts for children's peer relationships and associated adjustment to school 2. The role of day-to-day, context-specific social experience in children's peer relations.

The overall aim of my mixed methods, observational study was to examine the value (or otherwise) of children's school mealtime social experience for their peer relationships and adjustment. To fulfil this aim, I asked the following research questions which are explained further at the end of Chapter 3.

- 1. What is the nature of children's informal peer interaction during school mealtimes?**
- 2. To what extent are children's informal mealtime interactions with peers associated with their friendships and relationships with the wider peer group?**
- 3. How are children's informal mealtime interactions with peers associated with their friendships and relationships with the wider peer group?**
- 4. To what extent are children's informal mealtime interactions and peer relationships associated with their individual adjustment to school?**

1.7 A note on format in subsequent chapters

To guide the reader, I begin each of the following chapters (except the methods chapters) with a chapter overview and a precis which summarises the chapter content. In longer chapters, where a lot of material is covered (Chapters 3, 6 and 8a), this precis is broken into several parts.

Chapter 2 Rationale for a study of children’s informal school mealtime social experience: the wider context of children’s social lives and a psychological theory model

2.1 Chapter overview and precis of rationale for the study

In Chapter 2, I first provide a rationale for a study of children’s social experience with peers in ‘open’ school mealtime settings. This rationale is extended with reference to psychological theory which supports the proposition that socialising with peers in autonomy-supportive contexts is likely to be important for children’s well-being and ‘optimal functioning’ via its impact on their peer relations.

Precis of rationale for a study of children’s informal school mealtime social experience:

School mealtimes in the wider context of children’s social lives and methods for their study:

- Informal or ‘open’ school mealtimes - where children have freedom to choose who they spend time with and how to interact – provide an opportunity for children to interact with peers relatively freely of adult control. Such opportunities have been diminishing over recent decades and mealtimes themselves are sometimes highly structured. This erosion conflicts with children’s priority of spending time with friends. It may also have negative implications for their development and well-being.
- Studies using broad general measures tell us little about mechanisms which explain the connection between free socialising with peers in particular contexts, peer relationships and well-being. Instead, a research approach which closely focuses on interaction-in-context may be necessary for understanding the value of informal school mealtime social experience.

A framework based on psychological theory as rationale for the study of informal school mealtimes:

- I draw on Self-Determination Theory (SDT - Deci & Ryan, 2014; Ryan & Deci, 2000) and Bioecological Theory (BET - Bronfenbrenner & Morris, 1998) to present a Person-Process-Context-Time framework which highlights why children's informal mealtime social experience with peers is likely to be important for them. The framework is used to guide the remainder of the study including my review of literature in Chapter 3.
- SDT suggests that free mealtime interaction with peers can contribute to satisfaction of fundamental psychological needs for sense of relatedness, social competence and autonomy. This is important for wider well-being and functioning. Satisfaction of these needs (feeling related to others, feeling socially competent and feeling free to enter into peer interactions and relationships) may also motivate further satisfying mealtime interactions creating a virtuous well-being circle.
- BET indicates that forms of mealtime interaction – if repeated relatively frequently over time – may constitute '*proximal processes*' which contribute to children's development of their peer relationships and to their learning about how to negotiate them. BET also indicates that these processes will to some degree be specific to the mealtime setting since its '*particular physical, social and symbolic features [will] invite, permit or inhibit engagement*'. As such, mealtime social processes can only be fully understood by studying them in context. Study of mealtime processes may take place in '*mesotime*' (focusing on patterns of interaction over weeks and months) or '*microtime*' (focusing on detailed description of content and functioning during episodes of proximal processes).
- This framework is not in itself tied to any particular age group. However, my study focuses on children in middle childhood since this is an age when, for many children, peer relationships become more central to their lives, their interactions become more intense and complex and peer relations assume greater developmental significance.

2.2 School Mealtimes in the wider context of children's social lives

2.2.1 Increased structuring of children's lives and the erosion of open settings

Eating times are in a sense inherently constrained by the requirement to sit and eat. However my own visits to schools, as well as examples from research (e.g. Hart, 2016; Sellen et al., 2018), suggest that these times are often, perhaps typically, informal in the sense that children are free to sit with whom they want and talk about subjects of their choice. The term 'open setting' was originally applied to classrooms where children had autonomy in deciding who they sat with to work and to engage in extended periods of free interaction (e.g. see Schmuck & Schmuck, 2001). Informal mealtimes may also be conceptualised as open settings. Experience in an open mealtime setting is in contrast to significant constraints on child interaction in the modern classroom where interactions and seating tend to be closely controlled by the teacher (Howe, 2010) and where children are commonly separated according to attainment level (Hargreaves et al., 2021). The potential value of such mealtime social experience should also be understood in the wider context of children's social lives in England where it can provide an increasingly rare opportunity for children to interact with friends relatively freely of adult control.

In relation to mealtimes themselves, there are recent examples of closing down of settings and Hart (2016), in her study of 20 primary schools, has noted that while in some cases mealtime settings can be very free, in others they can be very controlled. In more controlled settings, children may be allocated fixed places, for example, as part of a family style system aimed at promoting cross-age social cohesion, where older children sit with and serve younger children (see also Sellen et al., 2018 - Case Studies 1 and 2). In some lunchrooms, adults sit with children to guide interactions at the table or to build adult-child relationships and provide informal pastoral support (Baker, 2017; Pike, 2010). Sellen et al. (2018) also provide an indication that, in some schools, since the introduction of Universal Infant Free School Meals (UIFSMs) (see their Case Study 3 for an example), mealtimes have become more rushed affairs because of the pressure to provide many more meals in the time available. There are also some examples of schools which have instigated silent school mealtimes (e.g.

Eggs, 2011; Rahim et al., 2012; Vonow, 2019) more or less eliminating this as a meaningful time to spend with peers.

There is, in fact, broader evidence that time allowed to children to spend with one another in open settings is diminishing. A recent large-scale survey of English schools (Baines & Blatchford, 2019) repeated two earlier surveys. This showed a marked decrease in school breaktimes since 1995 with an average weekly reduction of between 40 and 65 minutes per week (depending on Key Stage). The survey also found a reduction in the frequency of children meeting up with friends outside school with nearly half of children surveyed in 2017 saying they met up with friends less than once a week compared to a quarter in 2006. Researchers of children's independent mobility (defined as '*the freedom of children to travel around their own neighbourhood or city without adult supervision*' - Shaw et al., 2012) carried out surveys of parents and children spanning four decades (1971, 1990, 2010). They found that there was a particular loss of independent mobility for English 7- to 10-year-olds between 1971 and 1990 but that between 1990 and 2010 there was also a rise in the percentage of children accompanied to school by an adult (64% to 77%) and on weekend journeys (41% to 62%). Similarly Baines & Blatchford (2012) found a substantial increase for pupils aged 10, 13 and 15 years in travel to school by car and in parents accompanying children to school between 1990 and 2006, especially for the youngest age group (19% to 37% for the former; 36% to 60% for the latter).

There is a complex web of reasons behind this trend. The main ones given by parents for accompanying children to school in Shaw et al.'s (2012) study included that it gave them time to spend with their child and that they were concerned about traffic danger. Baines and Blatchford (2019) speculate that reasons for the dramatic fall in frequency of meeting with friends outside school may be due to increasing parental involvement in arranging children's socialising with friends – including because of fears for children's safety - with an associated reduction in children's spontaneous self-organised socialising. Another suggestion is that they spend more time at home engaging with digital and social media and online entertainment (which could of course, they note, include engagement with friends). Main reasons given by school staff for reduction in breaktimes in the study were to increase teaching and learning

time or to eliminate behaviour problems perceived to be associated with breaks. And returning to school mealtimes, politicians and advisors have advocated an approach to mealtimes where adults sit with children to guide their conversation and teach good manners (Dimbleby & Vincent, 2013; Gove & Laws, 2015). They suggest that such practices can have transformative power by enhancing relationships and school culture beyond, as well as within, the school dining room. However, Elliott & Hore (2016) highlight the fact that such advice is underpinned by one particular value-laden discourse of what constitutes correct and desirable behaviour. There is a tension between that discourse and the imperative to allow children to socialise freely with peers which I discuss next.

2.2.2 Opportunity to spend time in open settings and indicators of well-being

Whatever the reasons, undermining informal face-to-face time between peers, appears to be at odds with children's priorities. Qualitative data from several studies focused primarily on organisation and context of school mealtimes have shown tensions between children's desire to spend time socialising with friends while eating and adult objectives – at school and policy level - to organise healthy, 'well-mannered' eating by a large amount of children in a short amount of time (Pike, 2008; Daniel & Gustafsson, 2010; Hart, 2016). Contrary to some adult claims that this is often or even usually an unhappy time (e.g. Mosley, 2015), Baines & Blatchford's (2019) national survey found that a majority (70%) of children and young people liked or really liked the time they spent eating with friends. The fact that this was time spent with friends is likely to be central to mealtime enjoyment since the most commonly cited 'best thing' about breaktime overall (by 86%) in the survey was that it provided the opportunity to meet up with friends.

Limiting children's socialising with peers during school mealtimes may then involve disregarding the preferences of most children and so continuing the long neglect of children's views about mealtimes by policy makers (Gustafsson, 2002). However, the issue is not only one of attending to preferences. There are current concerns about

children's mental health and well-being¹ (e.g. Sunderland, 2019), including as a result of pressures at school, and that the constraints which adults are placing on children's social lives are likely to contribute to this problem. Several authors concerned with increasing restrictions on children's freedoms in this country (Gill, 2007; Gleave & Cole-Hamilton, 2012) and the US (Gray, 2015) have detailed evidence for the benefits of autonomous play and consequences of its decline. Arguing from an anti-school perspective, Gray says,

'From all I have said...it should be no mystery why a decline in play would be accompanied by a rise in emotional and social disorders. Play is nature's way of teaching children how to solve their own problems, control their impulses, modulate their emotions, see from others' perspectives, negotiate differences, and get along with others as equals.'
p.175

Shaw et al. (2012) have tied the decline in children's independent mobility to the argument of Layard & Dunn (2009) that children's freedom, including freedom to spend time with friends, is important for their sense of well-being; and to the UNICEF finding from comparison of child well-being in developed countries that the quality of children's peer relationships in the UK was relatively poor with potential consequences for their physical and emotional health (Adamson et al., 2007). Subsequent international comparison presented a better picture of relative well-being of UK children (Adamson, UNICEF, & Office of Research, 2013). However self-reported satisfaction with peer relationships by children aged 11, 13 and 15 (number who found their classmates kind and helpful) was at 63.3% (18th of 28 countries). More recently 'satisfaction with friends' has itself been treated as a component of children's subjective well-being: analysis of largescale UK survey data of 10/11 to 15 year olds has shown an association for boys between opportunity to 'hang out' with friends without adult supervision and this 'satisfaction with friends' component of well-being (The Children's Society, 2018). Both have also been found – regardless of

¹ Children's well-being as well as other forms of adjustment have been conceptualised and measured in a variety of ways. This is apparent here, in psychological theory presented later in this chapter (Chapter 22.3.1) and is discussed further in my review of peer relations literature in Chapter 3 (3.3.5).

gender - to relate to overall life satisfaction measures (Abdallah et al., 2014; The Children's Society, 2018).

Given diminishing opportunities for children to spend time informally with peers in general, the Children's Society data (Abdallah et al., 2014; The Children's Society, 2018) may be used to argue that barriers to 'hanging out' informally with friends in school – including during mealtimes - may also tend to undermine young peoples' well-being. However, the measures alone are too general to say anything about why such hanging out and what kinds of hanging out may be important for relationship satisfaction or where important kinds of hanging out take place. Indeed, cohort data has also been used to argue that children will benefit from taking part in more adult structured activity. During the New Labour government, Margo et al., (2006) found that out-of-school social activities (such as scouts, church groups, or sports clubs) related positively to personal and social skills but that participation in youth clubs was associated with poorer outcomes. They claimed that different micro-processes (Bronfenbrenner, 1979) stemming from greater adult structuring in the former type of activities versus less structure in youth clubs explain this difference in outcomes. However, this claim was based only on the type of group attended. Their findings give an indication of different impacts of the settings but, as with The Children's Society data, provide no evidence of the detailed mechanisms at work or how these may be supported or constrained by a particular setting.

A research approach more closely focused on interaction-in-context has therefore been advocated for subsequent study of the value of out of school activities for children's social functioning (Brown, 2013; Pierce, Bolt, & Vandell, 2010). Psychological theory presented in the following sections and empirical research presented in Chapter 3 show that such an interaction-in-context approach is also likely to be fruitful for developing understanding of the value of school mealtime social experience.

2.3 Theoretical basis for understanding open school mealtimes as valuable contexts for children’s social experience with peers

In this section, I present psychological theory which highlights the importance of free day-to-day peer interaction in a specific context – here the school mealtime – for children’s peer relationships, for learning how to negotiate those relationships and consequently for their wider adjustment. I construct a framework which draws together aspects of Bronfenbrenner’s Bioecological Theory (Bronfenbrenner & Morris, 1998) and of Deci and Ryan’s Self Determination Theory (SDT) (Deci & Ryan, 2014; Ryan & Deci, 2000). From the former, I take the ‘PPCT’ (Person, Process, Context and Time) model which emphasises that individual development is shaped by an individual’s regular interactions with elements of specific real-life contexts (like the school mealtime). From the latter, I draw on the notion that children’s autonomous social experience with peers (in the mealtime context) may go some way to address their fundamental psychological needs.

This study does not set out to test this theory. Rather it uses the framework to guide the remainder of the study including critical review of empirical literature which follows in Chapter 3.

2.3.1 The person (P): autonomous peer relationships as developmental outcome and developmental driver of school mealtime interactions

In Bioecological theory (Bronfenbrenner & Morris, 1998), the person - in this case the child - engages reciprocally with ‘*significant others*’ – in this case their peers - to generate developmental processes which bring about a given outcome. As such, relationships with others underpin developmental processes whatever the developmental outcome under consideration. However, in this study, mealtime interactions with peers, grounded in children’s relationships with one another, are not only potential drivers of development; the relationships are themselves a primary outcome of interest.

Reference to Deci and Ryan’s Self-Determination Theory (SDT) (Deci & Ryan, 2014; Ryan & Deci, 2000), which is grounded in a large body of empirical evidence shows

why peer relationships should be an outcome of interest. While children's peer relationships may be regarded as a good in themselves, the theory goes further. In line with the inclusion of friendship variables as components of well-being measures and findings that they relate to life-satisfaction (see 2.2.2 above), SDT identifies 'sense of relatedness' as a fundamental psychological need. This is one of a trio of needs which must be satisfied for individuals to achieve well-being, optimal functioning (including intrinsic motivation to engage in the world) and '*constructive social development*' (Ryan & Deci, 2000, p.68). Well-being and functioning indicators measured in their empirical work have been varied¹ and include '*self-esteem, self-actualisation and the inverse of depression and anxiety*' (Ryan & Deci, 2000, p.75). In school studies, they have included '*enjoyment of school*', '*deep learning, school engagement, creativity*' (Deci & Ryan, 2013, p.27 and p.31). Since children's peer relationships become more important to them as they reach middle childhood (e.g. Rubin et al., 2010 - see 0 below) they are likely, for many children, at that stage to become prominent for achieving both sense of relatedness and associated well-being and optimal functioning.

The other two needs (Deci & Ryan, 2014) are 'sense of competence' ('*feeling effective and confident with respect to some behaviour goal*' p.55) and 'sense of autonomy' ('*feelings of volition, willingness, concurrence and choice with respect to behaviour one is engaged in*' p.55). '*Thwarting*' satisfaction of these needs (e.g. undermining sense of autonomy through controlling behaviour or sense of competence through high-levels of criticism) will lead to signs of '*ill-being*' (p.54) and poor functioning. The three needs have been found to be interdependent which leads to several propositions about the reciprocity between social experience with peers in the lunchroom and peer relationships.

Firstly, a child's sense of relatedness, underpinned by peer relations with accepting others, may support motivation to interact with others in increasingly complex ways, in turn supporting their sense of social competence. Conversely, this sense of social competence in the lunchroom and concomitant motivation to engage in social activity may support a child's subsequent peer relationships and sense of relatedness. As such, children's peer relationships should not only be understood as an important

outcome of school mealtime experience for current well-being and functioning. They are also a driver of further social engagement and development which in turn may support the maintenance and development of future social relationships. There is, then, the possibility of a virtuous mealtime socialising circle (peer relationships – developing social competence with peers – peer relationships) with ongoing benefits for children’s functioning and well-being.

Secondly, SDT studies (see Deci & Ryan, 2014), although undertaken with adults, also indicate that feeling autonomous in the conduct of mealtime social experience will support the development of an individual’s sense of relatedness to their peers and of social competence. In turn, they should feel willing to engage with others to develop their relationships and social competence further. Deci & Ryan (2014) cite research evidence (e.g. Knee et al., 2005; Weinstein et al. 2010) for their hypothesis that:

‘...when people enter, commit to, and persist at close relationships autonomously they will likely experience the relationships to be of higher quality than when their motivation for the relationship is more controlled’
p.58

And that:

‘...if people were afforded opportunities for autonomy, they would more likely feel psychologically free and able to find or create opportunities to also get their needs for relatedness and competence satisfied.’ p.55

2.3.2 Context (C): The ‘autonomy supportive’ school mealtime context enabling relationship and social development

2.3.2.1 The ideal of an ‘autonomy supportive’ mealtime context for positive social development

In the previous section, I framed SDT propositions in relation to the school mealtime setting. However, the theory is limited in what it has to say about the context for valuable social experience. Deci and Ryan do, however, assert that it is important for school staff to provide environments which are supportive of ‘sense of autonomy’ and the other psychological needs (Deci & Ryan, 2014). This may favour the provision of open mealtime settings of a kind described at the start of Section 2.2 as opposed

to one where children have little autonomy to socialise because lunchroom interaction and seating are very controlled.

At the same time, Deci and Ryan are clear that autonomy support does not mean that children are simply left to their own devices. Rather they should have a '*sense of volition*' not only when they want to socialise independently but also in deciding when to seek support to do so. A child may sometimes need this support (e.g. an individual who has had a falling out, is in distress because of upset at home or has special needs) to feel socially competent during mealtimes, firstly, to achieve a sense of well-being but, also, to then feel able to enact their autonomous desires to socialise with others and to maintain and develop peer relationships. Therefore, lunchrooms may also be problematic for children in social difficulty if there is an absence of social support from adults and/or peers which may be the case if the environment is chaotic.

Both very controlled and very chaotic mealtime settings may then threaten the satisfaction of a child's '*sense of autonomy*' and, in turn, of their other fundamental psychological needs. An ideal of mealtime openness with the possibility of reliable social back-up is echoed in the Bioecological proposal that

'Extremes either of disorganization or rigidity in structure or function represent danger signs for potential psychological growth, with some intermediate degree of system flexibility constituting the optimal condition for human development.' (Bronfenbrenner & Morris, 1998, p.1020)

2.3.2.2 Space for free interaction with peers within the mealtime microsystem

Indeed, Bioecological theory has much more to say about the central role of context in social development. All parts of the environments or '*microsystems*' where children regularly spend time interacting are implicated in their development:

'A microsystem is a pattern of activities, social roles, and interpersonal relations experienced by the developing person in a given face-to-face setting with particular physical, social and symbolic features that invite, permit or inhibit engagement in sustained, progressively more complex

interaction with, and activity in, the immediate environment.'
(Bronfenbrenner, 1994 cited in Bronfenbrenner & Morris, 1998, p.1013)

Mealtime interactions may then have a distinctive character which can only be fully understood by studying them in that context. Some will be defined predictable behaviours which are highly determined often by school staff. In a school mealtime microsystem, these might include food and food collection systems, seating arrangements, rules for eating and adult supervision. As such, adults might be said to substantially '*permit or inhibit*' developmentally significant interactions.

However, within these adult constraints – and particularly in an open lunchroom - children can have considerable leeway to create their own '*pattern of activities, social roles and interpersonal relations*' and especially so in relation to meaningful interactions with peers. This might include establishing quite defined rules about who sits where or systems, for example, to save places for friends and these may contradict adult rules and systems. Yet in an open lunchroom, within the parameters of such defined behaviour, there will also remain a space for socialising which may be influenced by the setting (such as when children talk about or play with food) but which remains relatively free and indeterminate. In line with the need for autonomous development of sense of relatedness and social competence described in Social Determination Theory above, as well as with Gray's (2015) description of free play as essential for their relationships and social development (2.1.3), much of children's meaningful mealtime engagement with peers is likely to lie within this free talk and interaction.

2.3.2.3 Connectedness of mealtimes with other school contexts

Making this connection with play suggests that this free mealtime socialising could be similar and closely connected to free interaction which takes place in school settings which are very different but which also allow substantial free interaction with peers. In particular, socialising could be similar in the playground, although it will not be the same (children are unlikely to be allowed to play chasing games during mealtimes).

Indeed, Bronfenbrenner specifies that two or more connected microsystems, such as the lunchroom and the playground, form a 'mesosystem'. However, the mesosystem can be '*nested*' within an 'exosystem' – here the school - which also comprises the classroom and 'adult' contexts which the developing individual does not directly inhabit but which influence the microsystem (e.g. the school office, the staff room, the kitchen). In turn, exosystems are nested within the wider macrosystem of cultural attitudes and societal structures (e.g. local or national school meal policies and systems). Bronfenbrenner says that, '*the ecological environment is conceived of as a set of nested structures, each inside the other like a set of Russian dolls*' (Bronfenbrenner, 1979 cited in Bronfenbrenner & Morris, 1998, p.814). However, this conceptualisation has been criticised for overemphasis on separation of contexts as 'containers' for development given, for example, the very tangible enactment of macro-level cultural structures such as gender, ethnicity and government policy in the lunchroom (Thorne, 2005; Pike, 2010). And with specific reference to children's social lives, Baines & Blatchford (2009) say

'..in contrast to a notion of hierarchically nested contextsit is probably closer to the nature of human experience that these multiple layers are embedded and intertwined within everyday interactions and proximal processes without contextual boundaries.' p.758

2.3.3 Process (P) and Time (T): Mealtime interaction with peers as developmental process for peer relationships and social competence

The elements of Bio-ecological Theory and Self-Determination Theory set out in this section support the argument from Section 2.1 that space afforded to children to engage freely with peers within the school mealtime context is potentially important for their social development and well-being. This leaves open questions about the content or nature of this engagement and about how these specific mealtime interactions might be connected to peer relationships and social development. Bronfenbrenner identifies these contextualised interactions as developmental processes when they are examples of '*forms of interaction*' which are regularly repeated. He says:

'...human development takes place through processes of progressively more complex reciprocal interaction between an active, evolving biopsychological organism [i.e. the person] and the persons, objects and symbols in its immediate external environment. To be effective, the interaction must occur on a fairly regular basis over extended periods of time. Such enduring forms of interaction in the immediate environment are referred to as proximal processes....Proximal processes are posited as the primary engines of development.' (Bronfenbrenner & Morris, 1998, p.996)

The proximal processes of interest here are those autonomous forms of interaction which take place during school mealtimes; are grounded in current peer relationships, implicated in the development of new or current peer relationships and which may also involve social learning which is relevant for future relationships. In my literature review in Chapter 3, I discuss the extent to which empirical researchers have examined such processes. This discussion is also informed by Bronfenbrenner's notion of time (Bronfenbrenner & Morris, 1998; Tudge et al., 2009). Studies which adopt '*mesotime*' focus on patterns of mealtime interaction occurring over days or weeks. Those which adopt '*microtime*' involve moment-by-moment scrutiny during '*episodes of proximal processes*' offering the possibility of detailed description of their content and functioning. I consider the usefulness of these different approaches for shedding light on the value of school mealtime social experience.

2.4 Summary: a PPCT framework to guide critical review of research relevant to the study of school mealtime social experience

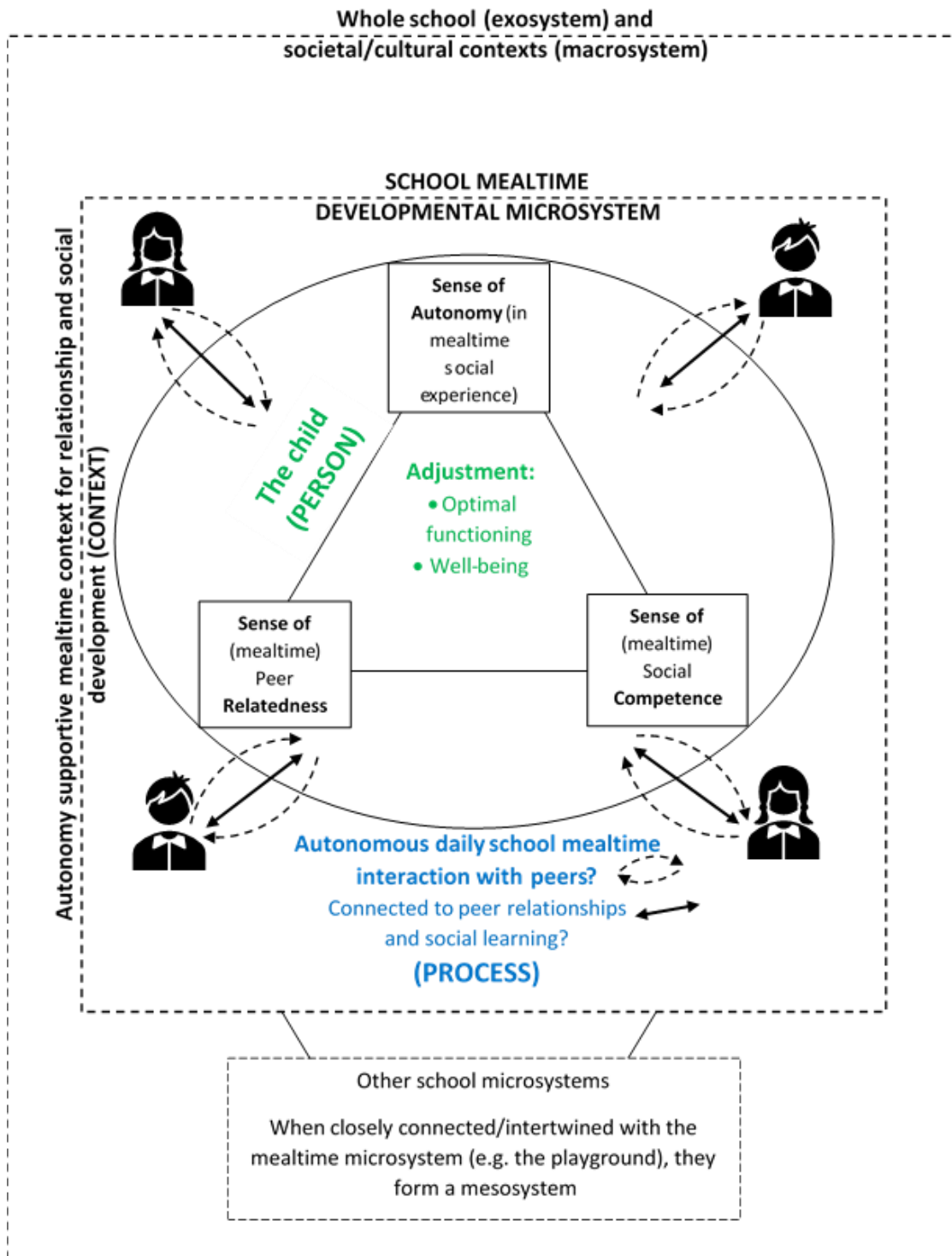
2.4.1 The framework

Figure 2-1 provides a diagrammatic model of the open school mealtime microsystem based on the discussion of Bioecological and Self-Determination Theories above.

The model has the individual child at its centre as represented by the circle. The child – along with a group of peers - is set within the informal school mealtime context where children have a large degree of freedom to choose who to sit with and how to interact. Dotted arrows represent day-to-day mealtime interactions which may constitute proximal processes. These have a reciprocal connection with current and future peer relationships which are represented by the solid arrows. Interactions and

relationships may satisfy (or not) the child's fundamental, interconnected psychological needs represented by the three linked boxes which, in turn, have implications for their well-being and functioning, collectively termed 'adjustment' here. This wider adjustment may also feed back into the child's sense of autonomy, peer relatedness and social competence which in turn may impact on mealtime interactions and peer relationships. This mealtime microsystem is likely to be connected to other school microsystems such as the playground and lunchroom. It also sits within the whole school and broader societal/cultural context.

Figure 2-1: Representation of the school mealtime developmental microsystem based on Self-Determination and Bioecological Theories



The main focus of my research - shown in blue and by dotted lines - is the content of children’s daily mealtime interaction with peers and the processes by which it may (or may not) be connected to peer relationships (solid arrows), social learning and to individual adjustment (shown in green). However, the following four main points drawn from the whole model address relevant aspects of Person, Process, Context

and Time and guide the literature review in Chapter 3 and, subsequently, the design of the study.

1. **The child/Person, mealtime social Processes and peer relationships.** The child's autonomous social interactions with peers in the school mealtime microsystem are likely to constitute proximal processes important for current and future peer relationships; and for associated individual 'adjustment' used here as an umbrella term for well-being and optimal functioning. As such, study of these proximal processes is key to understanding the value of social experience during open school mealtimes.
2. **Mealtime social Context as autonomous but constrained.** The interactions which constitute these developmental processes will take place in a free mealtime social space which is constrained, facilitated and influenced by the school mealtime context such that they can only be fully understood by studying them in that context.
3. **Interrelated Contexts.** At the same time, there may be strong connections and overlaps between the non-determined free socialising with peers which is allowed during mealtimes and in other contexts such as the playground. Other, often adult-directed, (exo- and macrosystem) contexts may also influence the school mealtime microsystem.
4. **Time frames for study of mealtime social experience.** Different timeframes can be adopted for the study of these mealtime proximal processes and implications for children's social functioning with peers and well-being. Mesotime studies will focus on patterns and consistency of interaction occurring over days or weeks; microtime studies focus on detailed description of their content and functioning during episodes of proximal processes.

In Chapter 3, I use this model as a framework to review existing research and examine what is already known about this mealtime social experience with peers.

2.4.2 A note on children's age

The framework above does not so far refer to a significant age group for the study of children's school mealtime social experience. However, my research focuses on children aged 9-10 years (Year 5 of primary school). At this age children are placed by researchers at the upper end of middle or in later childhood (e.g. as in Rubin et al., 2010) or at the lower end of pre-adolescence (e.g. as in Adler & Adler, 1998; Gifford-Smith & Brownell, 2003). This is the age at which Sullivan (1953) noted the appearance of 'chumships' and theorised their significance for future relationships. These authors note that, during this period, children spend more unsupervised time with peers than earlier in childhood, that their interactions are more intense and complex and that they become more important for children's sense of identity. At this age then, children are likely to be engaged in the type of relationship-relevant conversation which is of key interest in this study. Nevertheless, the issue of diminishing opportunity to interact freely with peers in and outside school affects children and young people across the primary and secondary school age range (Baines & Blatchford, 2019). The following literature review also refers to relevant research with varied age groups.

Chapter 3 Review of research relevant to children's school mealtime social experience with peers

3.1 Chapter overview and precis of literature reviewed

In this Chapter, I review research in three areas which is specifically relevant to understanding of children's social experience during school mealtimes 1. Research on school mealtimes 2. Research from the field of children's peer relations 3. Research from a smaller set of studies which have examined peer relations in particular school contexts. The review highlights current relevant knowledge and gaps in that knowledge and examines strengths and weaknesses of methods which might be used to examine peer relations in the school mealtime context. As such, it forms the basis for the final focus and form of my study including research questions which I present at the end of the chapter.

Precis of literature review 1: research on school mealtimes:

- **English school mealtime research:** The small body of relevant research undertaken in English schools does not substantially focus on the mealtime interactions between children (potential proximal processes) which are of interest here because they are likely to be important for children's peer relationships and associated adjustment. Studies largely focus on the adult controlled mealtime context. They show how adult systems and values or government policies may play out in the school lunchrooms and shape children's social experience.
- **Studies of mealtime social experience with peers:** A further small number of qualitative studies (mainly ethnographic and from outside the UK) do focus on mealtime peer interaction in detail. They demonstrate the richness and complexity of these interactions and describe some of its forms and functions. However, these studies are largely sociological and have a primary focus on the connection of these interactions to class, gender and ethnicity rather than on implications for individual peer relationships, social development and adjustment.

In common with other peer relations research, they emphasise negative aspects of peer interactions.

Precis of literature review 2: research from the field of children's peer relations:

- **Social processes and peer relationships:** Unlike school mealtime studies, peer relations research provides evidence of associations between social behaviours, peer relationships and individual adjustment. This adds weight to the suggestion that there will be implications for the individual of an intensely social school mealtime. However, typically used measures can give the impression that behaviours are fixed qualities of the individual and allow nothing to be said about the social processes embedded in day-to-day interactions which may explain such associations. A small number of researchers have placed greater emphasis on these social processes and several theoretical models present dynamic interactions as separate from child characteristics and from peer relationships yet closely interrelated with them.
- **Relevant peer relationships:** Peer relations research offers useful conceptualisation and measures of peer relationships which will facilitate their study in the school mealtime (friendships with variations in quality, peer acceptance by the wider peer group, 'perceived popularity'). There may be a peer group involving relationships which are specific to the school mealtime; however, relationships established in other settings like the classroom may also be an influence on mealtime social experience.
- **Peer relationships and individual adjustment:** Researchers have found associations of peer relationships with myriad forms of child adjustment. Some aspects, for example school liking, may be particularly tied to informal peer relationships but these may impact, in turn, on adjustment to formal aspects of schooling. Examining potential implications of children's school mealtime social experience for peer relationships and school adjustment requires these elements to be clearly distinguished and defined.

Precis of literature review 3: research on peer relations in school contexts:

- **Relevant peer relationships:** Methods of systematic observation used to identify playground social networks will also be valuable for the study of mealtime specific peer relationships and their connection to mealtime social experience.
- **Peer interaction in different contexts:** Mealtimes may offer many children, particularly boys, unique opportunities for conversational socialising which they do not have in the playground. 'Open' versus 'traditional' classrooms may enable genuine experience with peers with implications for their relationships - positive and negative – and this may also be the case for open school mealtime settings. Lack of opportunity to interact meaningfully with peers in contemporary classrooms provides an imperative for close-up study of interaction in open settings – including the conversational school mealtime - which are '*intimately connected with peer relations*' (Blatchford & Baines, 2010, p.231).
- **Playground social processes with mealtime parallels:** Qualitative playground research provides some detailed description of social processes ('*teasing*' and '*demeaning*') and their connection to peer relationships. These are relevant since they are akin to interaction types already identified by mealtime researchers. Mealtime versions seem likely to have similar implications for peer relationships. Like playground social experience, informal mealtime social experience may also offer opportunities for social learning about how to negotiate these relationships.

Precis of literature review 4: methods for the study of school mealtime social processes:

- **Value of observational methods:** Across the three reviewed areas of school mealtime and peer relations literature, quantitative and qualitative examples from empirical research demonstrate the value of using close-up observational methods. These can be used to identify social processes which are tied to specific contexts.

3.2 What is known about children’s school mealtime social experience and its connection to peer relationships and adjustment?

In this section, I review existing research on school mealtimes. First, I discuss English studies which have focused substantially on the mealtime context but not on children’s mealtime social experience with peers. Second, I discuss literature – mainly non-UK ethnographies – which have focused more on children’s mealtime interactions but without comprehensive study of implications for peer relationships or other individual outcomes. Finally, I review family mealtime research which shows the value of close-up study of mealtime interactions for examining implications of mealtimes for individual outcomes.

3.2.1 Quantitative studies of English school mealtime interventions: lacking focus on social interaction and process

In Chapter 1, I noted that, despite claims for the benefits of school mealtime social experience, interest has mainly been focused on their role in children’s health and learning related behaviours. Several large-scale quantitative studies tied to government school mealtime policy in England have touched on possible impacts of school mealtime social experience on pupil functioning but their treatment of this issue is cursory.

Most relevant are two large-scale intervention studies undertaken by the School Food Trust, one at primary and one at secondary school level (Golley et al., 2010; Storey et al., 2011). Their mealtime improvement interventions included changes largely to adult controlled physical and social aspects of the dining room environment (including table and chair arrangement, decoration, noise reduction, introduction of dining room rules, addressing lunchtime duration and queuing, school and packed lunch eaters sitting together to support good relationships, staff behaviour management training, school ownership and pride in the school dining room - Golley et al., 2010) as well as to the nutritional content of meals. In the secondary study, they speculate that post-intervention changes to classroom behaviours (after lunchtime on-task/off-task) might stem in part from changes to the dining room

environment which could facilitate social activity and informal peer relationships and which might then benefit engagement and achievement at school. Similarly, Kitchen et al. (2013) suggest that one reason for positive impact of Universal Infant Free School Meals (UIFSMs) on attainment at Key Stage 1 and 2 might be '*the social benefits of children eating a meal together*' (p.114).

However, these conclusions are speculative. In the Golley et al. research, even though the intervention itself indicates recognition of numerous aspects of the environment that might be influential for children's eating time experience, the authors do little to unpick possible complex and interesting associations relating such factors to daily informal social interactions (potentially proximal processes) and consequent individual development. Quantitative findings relating to the impact of universal infant free school meals (UIFSMs) (Sellen et al., 2018) give some minimal consideration to staff views of UIFSM impact on behaviour in the lunchroom ('behaviour', 'social skills' and 'etiquette') but offer no insight into the nature of that behaviour or its value for children.

3.2.2 Studies of social aspects of English school mealtimes: focusing on the school mealtime context

A number of qualitative English studies do concentrate at a more microlevel on what happens during school mealtimes. However, their focus is more on the characteristics of school dining rooms, eating systems and the way these are socially constituted than on the content of children's mealtime social experience with peers. The usefulness of these studies here is that they provide insight into the context which forms an important part of the microsystem where that autonomous social interaction takes place.

One emphasis in these studies is on the way that national policy and discourse shapes lunchrooms and at the same time they show that there are substantial local differences. Stressing the interconnectedness of local and other contexts (and criticising the degree of hierarchy and separation implied by Bronfenbrenner and

Morris (1998)'s description of contexts as microsystems nested within exo- and macrosystems), Pike (2010) says that she thinks about

'...these dining rooms as bounded materialities invested with specific practices and cultures that are distinguished by porous boundaries through which relationships with other sites are generated.' p.268.

An example comes from the case studies in Sellen et al.'s (2018) evaluation of UIFSMs which show the different ways in which ten primary schools accommodated and implemented the policy which meant providing and organising children's eating of a much larger number of hot meals. In one case, lunchtime service was extended and classrooms were used as overflow eating spaces; in another 'family service' was introduced with food served to tables of eighteen children overseen by a teacher who sat to eat with them.

Some researchers of local lunchroom practices and cultures argue that there are social benefits for children of this latter kind of adult participation in, guidance or organisation of children's mealtimes. For example, Lalli (2019) who has undertaken a single case ethnographic study of a secondary school 'restaurant', emphasises the under-realised potential for staff to support social learning of young people in relation to behaviours which will stand them in good stead. This could include learning how to socialise and how to eat in a socially acceptable way. In her study of twenty primary schools, Hart (2016) talks about practices which will support social cohesion such as when staff sit with children to eat or where children sit in mixed age groups with older children serving younger ones.

However, Hart (2016) has also referred to the fact that mealtimes can be very free or very controlled and a different focus in English studies is on the constraints placed by adult mealtime organisation on children's social experience with peers. Drawing on Foucault's sociological theory, Pike (2008; 2010) conceptualises the school dining room as a '*governmental*' space where '*technologies of control*' are used to create '*docile and constraining bodies*'. This is seen as part of a neo-liberal project to create '*well-ordered, well-behaved children*' who will conform to dominant political, social and economic discourses about right behaviour. In her ethnographic study of four Hull primary schools, she notes cases where '*the discourse of nutrition was privileged*

over the discourse of social dining' (Pike, 2008, p.416). For example, space was *'organised to maximise throughput and minimise the potential for children's social interaction'* (p.417). Movement was allowed only for the purposes of collecting food and not for socialising; packed lunch and school dinner eaters might be segregated. And Hart (2016) has noted that *'banquet style'* tables with fixed button seating keep children at enough of a distance from one another to limit their interaction. Pike (2010) observes that because of time pressures *'Lunchtime supervisors ensure that children do not waste time by chatting, giggling, playing instead of eating'* (p.160; see also Turner et al., 1995).

Pike (2010) provides examples of dining room systems which placed high levels of constraint on children's socialising. In one case, *'Social Etiquette Training'* was introduced (in line with what Elliott and Hore (2016) term the *'Manners Maketh Man'* discourse – see 2.2.1) whereby children were allocated seating and teachers sat with their classes to teach *'good manners'*. By contrast, a lack of supervision in another school led to a noisy and chaotic environment where children rushed their food so that they could leave as soon as possible. These cases are suggestive of the extremes of environmental disorganization or rigidity which Bronfenbrenner argued may be detrimental to children's development (Bronfenbrenner & Morris, 1998). However, even without such extreme scenarios, after observation and child interviews for a study of mealtimes in three London primary schools, Daniel and Gustafsson (2010) said

'The theme which emerges most strongly within our study relates to the children's dislike of adult intrusion into what they view as their limited and therefore precious opportunity for interaction with their friends. Issues to do with space and time – the seating arrangements; the ways in which the organisation of lunchtime facilitates or limits their social interaction – dominate their responses...the common theme is a conflict between the children's social value of their lunchtime and the more instrumental value placed on this by the organisation.' p.272

Pike (2010), Daniel & Gustafsson (2010) and my own previous research (Baines & MacIntyre, 2019) all provide examples of children playing or resisting the mealtime system to ensure that they could sit with friends to eat (for example by rushing to the

front of a queue to ensure that they could occupy lunchroom space and save seats for friends; or even by sitting under tables to avoid separation from friends).

This set of studies have explored in some depth the policy context of English mealtimes and how this plays out in school dining rooms including in relation to children's social experience. Yet their focus is firmly on how adult organisation of the mealtime context creates tensions and possibilities. Daniel and Gustafsson (2010) advocate for mealtimes as a 'children's space' and ask what this might look like. However, I have already argued in Chapter 2 that in an open mealtime setting where children can largely decide where to sit and how to interact, children do have space - albeit constrained - to engage freely and meaningfully with peers. Indeed, a rare UK study of student behaviour during school mealtimes, although of only one English secondary school, indicated that mealtimes can offer particular opportunities for conversational interaction. Golding and Blatchford (in preparation) used quantitative systematic observations and found that 74% of observations in the lunchroom involved '*socialising*' (versus playing games, moving around or engaging in schoolwork) as compared with 50% on the playground and 24% in the halls (corridors). They point to environmental factors, specifically arrangements of tables and chairs, as accounting for their additional finding of larger group sizes in the lunchroom versus the corridors and playground. Sitting with a group is also likely to have encouraged the high incidence of socialising.

However, 'socialising' is a broad category. UK research provides little examination of the specific kinds of peer interactions and social learning which take place in this autonomous space.

3.2.3 Studies of school mealtime social experience: close-up studies of potential proximal processes and peer relationships

Another group of observational (mainly ethnographic) studies from outside the UK do focus on close description and analysis of the free mealtime social experience of children and young people with peers (Andersen, Holm, & Baarts, 2015; Eder, Evans, & Parker, 1995; Nukaga, 2008; Thorne, 2005). However, like the context-focused studies discussed in the last section, they are sociological and concentrate primarily on the playing out of specific cultural and structural phenomena (class, gender and

ethnicity) during mealtimes although this time within interactions between children. They have less to say about the implications of these interactions for individual peer relationships and associated adjustment which are the key interest for this study. Also of relevance is my own mixed methods research from a social psychological perspective (Baines & MacIntyre, 2019) which examined Year 5 (9-10 year old) children's accounts of their mealtime social experience with peers.

Together these studies amply demonstrate the social richness and complexity of school mealtime interaction between peers and point towards some proximal processes associated with peer relationships in this context. The potential significance of this social experience is highlighted by occasional reference to concepts used by family mealtime researchers.

3.2.3.1 Sitting with others: inclusion and exclusion in eating groups

All but one of these studies noted children's practices around deciding where to sit for mealtimes. Children made great efforts and employed strategies to sit with friends. For example, children rushed to be in queues together; arrived in the school cafeteria with friends and searched for tables together; sat in close proximity once they had found a table; and saved seats for friends who had not yet arrived (e.g. Nukaga, 2008; Baines & MacIntyre, 2019). Eder, Evans and Parker (1995) also note seat saving as a means of deliberately including and excluding certain children from a mealtime group and Ng (2018) has noted that such exclusion can be a daily experience for some children. The forethought implicit in these practices may sometimes act as a powerful signifier of commitment or rejection. Eder et al., (1995) note that seating groups become increasingly status (as well as class and gender) based and fixed as children progressed through the Grades 7-9 (10 to 14 years). This suggests that children's consistent, intentional planning to sit together or apart - thus defining the in-group and out-group - may have significance for group cohesion and for individual social identity.

To borrow concepts used by Fiese and colleagues (Fiese et al., 2002; Fiese, Foley, & Spagnola, 2006) with reference to family mealtimes, where children decide to sit may to some extent be a habitual mealtime 'routine' (i.e. purely organisational and

instrumental). However, the practices observed and reported by children in these studies seemed more likely to constitute mealtime 'ritual': that is to say that they have a symbolic and affective dimensions which may, over time, have an impact on individual self-perceptions and adjustment.

3.2.3.2 Sharing and exchanging food

Another key feature of mealtime social experience was the food itself. Again with reference to the family mealtime, Ochs and Shohet (2006) have noted the highly symbolic nature of food itself. For example, they talk about food as potentially both a symbol of care within families when it forms the basis of a pleasurable eating experience but that sometimes it may be '*used as a weapon or threat*' when, for example, there are arguments or tensions over children's refusals to eat, such that children may be socialised into conflict. School mealtime researchers have also identified symbolic aspects of food relevant to positive and negative aspects of peer relationships.

Studies have shown how food brought from home is symbolic of class and ethnic differences (Nukaga, 2008; Thorne, 2005) displaying '*aspects of family lifestyles and preferences*' (Brannen & Storey, 1998, p.84). Both Thorne and Nukaga describe how valued foods acted as relational currency and were at the heart of flourishing illicit food economies in the US elementary school classes they studied. Thorne says,

'[Children] don't just eat and comment on what others have brought – they share, trade, beg, coerce, refuse and grant requests for food' in a process designed to 'establish and mark relationships' pp.80-81

Examples from Thorne's work included the explanation from a 4th grade girl that you share food with your friends but trade with others; an example of pizza distributed by one girl to selected others in a way that indicated the drawing of group boundaries; and several accounts which showed how possession of sweets, crisps or highly valued branded foods attracted attention to children who were otherwise not popular. Granting and refusing to share desirable foods was, according to Thorne, used '*to maneuver and mark lines of friendship, distance, enmity and desire*' p.80.

Nukaga (2008) examines how children of Korean heritage explore and construct their ethnic identities through comparing and sharing food. Specifically, there is mutual appreciation and sharing of traditional cooked foods between Korean children which strengthens their relationships. Muting of differences via food consumption is also mentioned. In Nukaga's study, children achieve this by sharing and exchange beyond the ethnic group of 'dry' foods which are familiar to and valued by all children. Thorne notes that children sometimes 'mute' differences by deciding to eat cafeteria food instead. However, in their study of two Danish schools, Andersen et al. (2015) contrast packed lunch sharing as '*symbolic gift exchange that is built on solidarity, sympathy, and friendship*' p.403 with division and alienation which was created when cooked Danish food service was introduced highlighting foods that minority children were unable or unwilling to eat. They argue that this finding challenges the traditional anthropological notion of 'commensality' (social experience of sharing food together) whereby it would be expected that sharing the same food would draw individuals closer to one another.

3.2.3.3 Conversational interaction

Many of the mealtime 'proximal processes' (Bronfenbrenner & Morris, 1998) which are implicated in the development and maintenance of peer relationships (and associated social learning and individual adjustment) are likely to take be embedded in the open-ended conversation which takes place between children. Most of these studies did not focus extensively on this conversational content. The exception was Eder et al.'s (1995) three year ethnography of adolescent social lives in a US middle school cafeteria. It focuses in depth on the language usage involved in the production and re-production of unequal gender relations. These interactions also had significance for peer relations more broadly. Eder at al. say,

'The everyday, taken for granted routines of friends during free time lunch activities provide numerous opportunities to create shared meaning and a new sense of belonging. Many of these routines are based in language; informal talk becomes an important medium for creating mutual understanding. Frequently students share stories about their lives, often starting with the phrase, 'Remember when...'. Other forms of talk such as

gossip, teasing and insulting, allow them to collectively create various notions about what it means to be male or female.’ p.2

They describe social functions of specific forms of talk. Insult routines used by boys involved an individual using his insult skill to dominate or humiliate another with the target expected to ‘take it and not get upset’ and as such were used to enforce norms of masculinity. Covert gossip (described as ‘highly collaborative’ p.110 and difficult to challenge) was more commonly used by girls and involved evaluation of others and enforcement of social conformity. Collaborative Teasing was identified as a device used to mock gender stereotypes. Joint Storytelling was used in the creation of collective norms and for the expression of different points of view. Re-enactment of films or TV was used for the reinforcement of negative sexual stereotypes. Different kinds of interaction were found to characterise the interaction of different groups according to status and gender. For example, high-status boys engaged in high levels of verbal aggression and challenging (in line with the culturally endorsed ‘sporting’ behaviours which underpinned their status in the first place). Less cohesive medium/low-status boys’ groups were found to engage in more telling of jokes, re-enacting scenarios and comedy routines. Medium/high-status girls were concerned with popularity, engaged in gossip about appearance (the culturally valued criteria for their popularity) and behaviour of others and in funny storytelling about experiences. Medium/low-status girls were more boisterous and engaged in a range of speech routines – insulting, teasing, gossip and storytelling.

In this work, then, Eder et al. (1995) note that status position within and between groups is both established and expressed through eating time talk and, as such, the two are intimately connected. Stereotypes and norms are created, enforced and challenged through this talk, thus enabling and constraining behaviours accepted by the group. This evidence of varied, complex conversational techniques supports the suggestion that autonomous interactions between peers are likely to constitute important proximal processes in relation to the development of social competence as well as to individual relationships themselves. Yet, demonstrating this is not the aim of the study and it is limited in the extent that it can do so. Firstly, Eder et al. consider the impact on within group status of how individuals act or are subject to

actions but they do not consider the role of such interactions in important one-to-one relationships such as friendship. Secondly – in common with much other peer relations research (Allen & Antonishak, 2008; Parker et al., 2015) - they focus strongly on negative interactions and how these create inequalities within and between groups; they focus much less on prosocial behaviours (e.g. helpfulness or kindness). Thirdly, they refer to likely negative social and psychological impacts on individuals resulting from competitive day-to-day behaviours which they have documented but do not examine these.

Finally, this work is based on research with 11- to 14-year-olds in a single US middle school in the 1990s and so has questionable relevance to the lives of UK primary school children now. However, my own work (Baines & MacIntyre, 2019b) with slightly younger UK Year 5 (9- to 10-year-old) children, based on child reports of their last mealtime conversation, are similarly suggestive of talk with relevance to peer relations. Examples suggest the possibility of development of group peer culture (e.g. talk about shared interests such as football or TV shows), affiliation and inclusion (e.g. sharing personal concerns, planning and coordination of activity in the playground or out of school, humorous reminiscence), status building (e.g. who has the latest computer games console) and hostility (laughter at a child sitting alone). A large majority of children (more than 80%) also reported that they liked time spent eating with others, that most (89%) had sat with one or more friends during their most recent mealtime and that most (91%) preferred to sit with friends. However, this study lacked detailed examination of children's mealtime interactions of a kind made by the ethnographers (Eder et al., 1995; Nukaga, 2008; Thorne, 2005) which would be necessary for substantial examination of the connection between mealtime interactions, children's relationships and their individual adjustment.

3.2.4 Mealtime specific peer groups: an association with one type of peer experience

In one large scale US psychological study from the field of peer relations, Craig et al. (2016) usefully introduce the idea of peer relationships which are specifically tied to the school mealtime setting (usual seating companions - discussed further in 3.3.4).

They provide evidence that acceptance by the mealtime peer group is more strongly negatively associated with one form of informal experience with peers – peer victimisation – than acceptance by their whole class. However, their study examines only one narrow strand of negative behaviour which may take place in the lunchroom or elsewhere so has little to say specifically about the connection of mealtime social experience with peer relations.

3.2.5 Testing ‘the magic’ of mealtimes: indications from quantitative family mealtime research using distant and close-up measures

Review of ethnographic studies of school mealtimes has shown that children’s everyday mealtime interactions can be complex and varied and may be connected to their peer relationships and to individual adjustment. This chimes with the notions from family mealtime researchers of relatively brief mealtimes as ‘*densely packed*’ (p.85) and ‘*multi-layered*’ (p.87, Fiese, Foley, & Spagnola, 2006) and as ‘*cultural sites for the production of ‘sociality, morality and local understanding of the world*’ (p35, Ochs & Shohet, 2006). Family researchers have focused much more on implications of this time for individual mealtime participants seeking to find what Musick and Meier (2012) have called ‘the magic’ of family mealtimes. I, therefore, briefly consider methods used in this research which may inform research on the value of school mealtime social experience. Of particular interest, is the distinction between quantitative studies which use broad questionnaire measures and those which use close-up observational measures of mealtime interaction.

The former include US studies showing correlation of mealtime frequency with a range of child and adolescent outcomes (Fiese & Schwartz, 2008). These are limited because they cannot show how or even whether participating in family mealtimes – rather than other aspects of family experience - might account for findings (Musick & Meier, 2012; Offer, 2013; Pike & Leahy 2016). Pike and Leahy also argued that this research tends to neglect the fact that family mealtime interactions can be negative as well as positive and have damaging consequences for individuals involved. More recent studies focus more on content of mealtime interaction. For example, Ho et al., 2016 found an impact of self-reported ‘joy’, ‘gratitude’, ‘flow’, ‘savoring’ and ‘listening’

in family communication on measures of well-being. However, the use of self-report measures of interactions mean that the study remains removed from social mechanisms which might be at work.

A more promising approach for the study of school mealtime social processes is indicated by others who have sought to make a direct study of family mealtimes using a micro-level observational approach. Fiese et al. (2006) and Bohanek et al. (2009) recorded family mealtimes (the former using audio, the latter video) allowing them to identify specific microtime interactions of interest. Both then found negative associations of particular interaction types (e.g. clear parental communication; interpersonal involvement; mothers elaborating on family narratives; fathers requesting information about family narratives) with children's internalising or externalising behaviour. This kind of close-up observation thus enables detection of specific and significant aspects of interaction in the mealtime context. In addition, they may include interactions of which the participants are unaware and so could not anyway be detected using self-reports.

Their reduction to quantitative measures for this kind of analysis removes something of the richness and completeness of ethnographic description of mealtime interaction as social process (for example, including and excluding through seat saving or sharing food during school mealtimes, described above). Nevertheless, the measures (e.g. elaborating or requesting information during reminiscences) remain closely tied to specific elements of participants' everyday mealtime experience in a way that broader, more distant measure (e.g. self-reported joy or flow) are not. Such a quantitative approach also offers the possibility of analyses that qualitative methods cannot: description of school mealtime interaction patterns across a large number of children and testing of their association with interaction and adjustment or other individual outcomes.

3.2.6 Implications of school (and family) mealtime research

Existing qualitative school mealtime research in England clearly demonstrates that organisation of the school mealtime context is strongly influenced by government policies as well as more locally determined adult values and organisational strategies.

There are also firm indications from a few small-scale studies – particularly from non-UK ethnographies - that, within these adult constraints, children (and young people) find and organise mealtime space to engage in a variety of rich and complex interactions. There is some evidence that these interactions are connected to group inclusion or exclusion and to status relationships. However, review of the studies also indicates that there is a case for a more detailed and substantial examination of the connection between positive and negative aspects of this rich social experience, different facets of children’s peer relationships and their individual adjustment. This will be key to understanding the social value (or otherwise) of UK school mealtime.

This section has also shown the utility of ‘close-up’ qualitative research for describing context-specific mealtime interactions which are likely to constitute proximal processes and which have been neglected in studies of English school mealtime interventions. In addition, family mealtime research has shown that a micro-level observational approach can be used to derive quantitative measures of interaction tied closely to the mealtime context which can be used to describe patterns of interaction across large numbers of participants and to test connections of this social experience with individual outcomes.

3.3 Findings and research methods from the study of children’s peer relations with relevance for understanding the value of school mealtime social experience

In this section, I consider how research from the study of children’s peer relations can add to understanding of the value of children’s school mealtime social experience for children’s peer relationships and adjustment to school.

3.3.1 Associations between social behaviours, peer relationships and adjustment: a static view of the individual and neglect of process

The field of children’s peer relations consists of a large body of research from a variety of disciplinary perspectives (Parker et al., 2015) which examine connections between children’s peer relationships, social behaviours and various types of adjustment. Unlike school mealtime research, this evidence powerfully illustrates the likelihood

of implications for the individual of an intensely social school mealtime. Varied expressions of sociability, aggression, withdrawal, positive engagement and conflict management described in the school mealtime research (3.2.3) echo behaviour styles which have been associated with peer relationship measures. For example, Newcomb and colleagues' early key meta-analytic study showed connections between a child's sociometric peer acceptance categories (as devised by Coie, Dodge, & Coppotelli, 1982) and their behaviour profile. This included findings that sociometrically popular children were significantly more sociable, less aggressive and less withdrawn than 'average children'; and 'rejected children' were less sociable, more aggressive and more withdrawn ($d = .109$ to $.639$) (Newcomb, Bukowski, & Pattee, 1993). In their meta-analysis of children's friendship studies Newcomb and Bagwell (1995) identified four 'broadband' behaviours which were greater in interactions between friends than non-friends: positive engagement; conflict management; task activity; relationship properties (equality in exchanges, mutuality and affirmation) ($d=.128$ to $.472$). Parker et al. (2015) also note that there is substantial evidence from longitudinal studies that these associations between peer relationships and behaviour style are bi-directional. One example, is from Dirks et al. (2018) who review evidence suggesting not only that prosocial behaviour predicts peer acceptance but that the reverse is also true.

Similarly, reviews cite an array of studies which show associations of children's peer relationships and behaviour style (likely to be played out during school mealtimes) with adjustment outcomes in childhood and beyond. For example, Howe (2010) (noting that there is a heavy research emphasis on the negative) documents research showing that peer group rejection predicts later internalising difficulties (e.g. low self-esteem and anxiety) and/or externalising difficulties (e.g. criminality, disruptiveness and delinquency). Ladd, et al. (2012) cite evidence indicating that

'adverse relations with classmates (e.g. peer rejection, victimization, friendlessness) and associated processes (e.g. exclusion from learning activities, harassment) predict not only the inception of school adjustment problems (e.g. negative school attitudes, school disaffection/engagement underachievement...) but also the growth... and the long term trajectories of these problems.' p.47

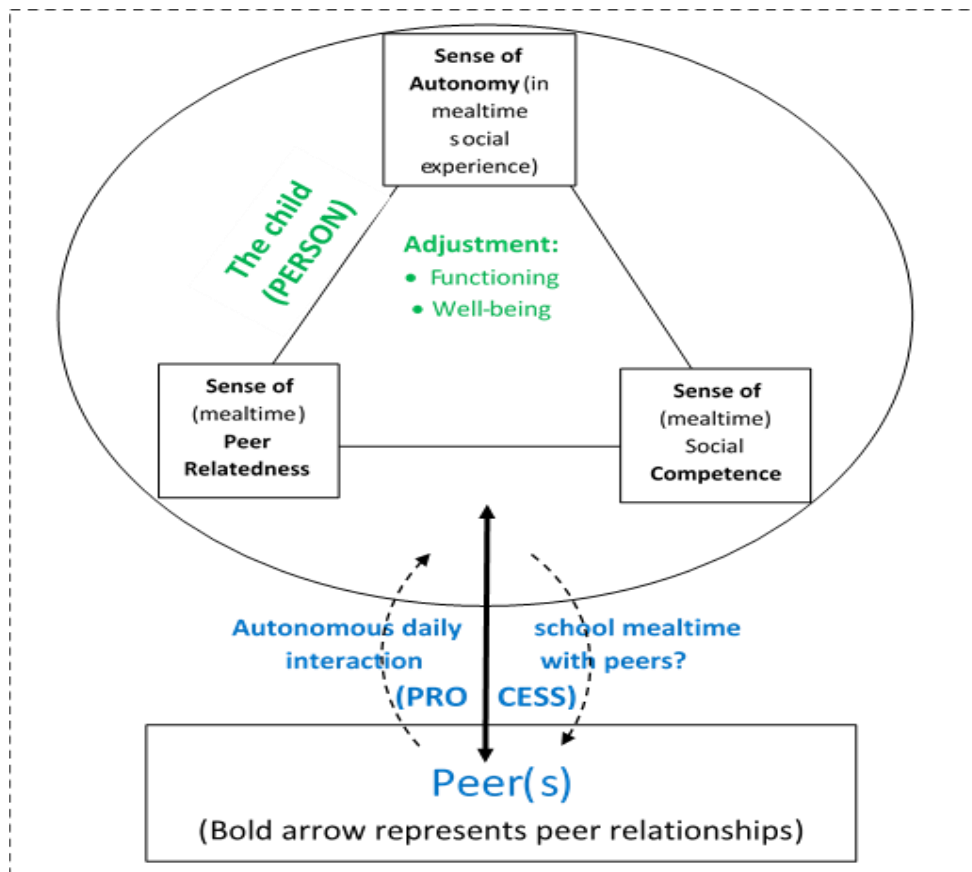
Yet there has long been criticism that the field as a whole presents an overly static and unidimensional picture of the child's social experience (Hartup, 1996; Parker et al., 2015) limiting its usefulness for indicating the likely form and implications of dynamic social processes embedded in mealtime interactions. Typically used measures of peer relationships (e.g. popularity, friendlessness) and/or global measures of child behaviour style (prosocial, aggressive) derived from teacher, parent or other child questionnaires can give the impression that these are fixed, essential qualities of the individual with well-defined outcomes (Blatchford et al., 2016).

Limitations of this approach have been demonstrated in part by the fact that later research has found heterogeneity within broad behaviour types discussed above which has been found to be related to varied peer experiences. In relation to aggression and rejection, for example, research indicates that only half of aggressive children are rejected by peers (Gifford-Smith & Brownell, 2003) and only 40-50% of rejected children are aggressive (Sandstrom & Coie, 1999). In this latter group, some children may be shy/withdrawn and others may display non-normative behaviour. However, even given such added complexity, studies solely focusing on such global measures of the child's behaviour encounter the same problem as family mealtime studies (3.2.5) which find associations of report measures of mealtime frequency/behaviour and of adjustment but can say nothing specific about the mechanisms which might explain them.

The problem can be illustrated with reference to the simplified diagram of my theoretical framework shown in Figure 3-1. The model agrees with the peer relations research evidence that there is a bi-directional connection between peer relationships (the solid black arrow) and aspects of the individual child (in green) which might include behavioural tendencies and other aspects of adjustment. However, it also indicates that daily repeated interactions with peers (dotted arrows) influence (and potentially change) more enduring peer relationships and individual adjustment which, in turn, influence those daily interactions. The studies above leave unexamined such varied bi-directional, context-specific behaviours which may constitute dynamic proximal processes (in blue) and which, as such, Bronfenbrenner

(Bronfenbrenner & Morris, 1998) puts at the heart of children’s development. Brown et al. (2008) emphasise that it is important to understand and specify distinct peer processes since they may vary in power or function. (Brown et al. are particularly referring to distinct ‘modes’ of peer influence: peer pressure; behavioural display; antagonistic behaviours; behavioural reinforcement; and structuring opportunities.)

Figure 3-1: Simplified representation of the school mealtime developmental microsystem based on Self-Determination and Bioecological Theories



The neglect of ‘social process’ in much peer relations research has also been discussed by Dirks et al. (2018) in relation to research about prosocial behaviour and, in addition, is well-illustrated by recent psychological research into children’s peer relations and humour (both phenomena which certainly feature in children’s school mealtime interactions). James and Fox’s (2018) study used global self-report measures from 8 to 11-year-olds of their humour style, adjustment and reciprocated friendship. By using only ‘distant’ measures of the child at the start and end of a school year, they can only speculate about the day-to-day mechanisms which may explain longitudinal associations. For example, they found an association between

number of friends and later affiliative humour style (e.g. tendency to joke or laugh with others). They discuss this with reference to Klein and Kuiper's (2006) reasonable but untested proposition that children with positive peer relationships may learn and develop this form of humour in the context of those relationships but can provide no evidence of this.

3.3.2 Models of dynamic links between the child, moment-by-moment peer interaction and peer relationships

Other psychological peer relations researchers have, in fact, presented models of children's social experience with peers which are more in line with Bronfenbrenner's emphasis on development as occurring via repeated reciprocal interaction between the child and '*persons, objects and symbols in its immediate external environment*' (Bronfenbrenner & Morris, 1998, p.996). One example is from Levinger and Levinger (1986) who present a '*causal model of peer interaction*' which is used in their discussion of '*development and change in close relationships*' (p.111). They say:

'Person-Other interaction is affected by and affects relatively stable causal conditions, which include P's and O's personal characteristics (P and O), their relationship attributes (P x O) and their environmental characteristics (E_{soc} and E_{phys}).' p.114

Another example is from Parker et al. (2015) who present a model of maladaptive peer influence on the child within an antisocial relationship or peer group. It proposes that aspects of individual cognition (e.g. '*Expectations, values, and goals*') both influence and are influenced by elements of others' behaviour (e.g. '*Antisocial behaviour*', '*Reinforcement of perceptions*' p.463). In this case, the peer relationship itself is a context for the peer influence process but is not explicitly an outcome of the ongoing interaction. Nevertheless, both models place cyclical interaction with peers at the heart of relationship-relevant developmental processes. Even though Levinger and Levinger (1986) note phases of friendship development (acquaintance; friendship beginning; build-up of friendship; continuance; and deterioration) relationships are considered as relatively stable. And, in contrast to some sociological studies of children's school mealtime social experience (e.g. Nukaga, 2008 - discussed

further below), Levinger and Levinger distinguish the relatively stable peer relationship (P x O) from daily interactions which contribute to them. Both models also distinguish relatively stable child characteristics from interactions. At the same time, these elements are closely interrelated. Levinger and Levinger say,

'Defining a relationship between two individuals as the existence of causal connections between their chains of events highlights the role of interactive sequences of events and the meshing of each members' intrapersonal happenings (i.e., thoughts or feelings) with those of a partner. This perspective emphasizes that a pair's degree of closeness is indicated by the frequency, diversity, and strength of influence that flows between the members' chains: How often do the partners interact? How varied are the domains of their interaction? How strongly do they affect each other? The nature of those interchanges – friendly or hostile, nurturant or uncaring, hierarchical or equalitarian, facilitative or interfering – suggests additional defining qualities.' p.112

Both also provide indications, that while interactions are dynamic and occurring in the moment (for example during school mealtimes), they are encouraged and constrained by more stable features of the individual or relationship. The central notion in Parker et al.'s (2015) model that a child is socialised by peers into maladaptive behaviours, indicates that there will also be a degree of stability or pattern in interactions and behaviour between peers in a given relationship or group.

This image of relationship processes as dynamic yet stable, of the child as active yet constrained and with interrelated elements of person, social relationships, context and interaction is echoed in methodological standpoints set out by ethnographers of children's social lives. For example, in relation to their study of peer influence, Adler and Adler (1998) say,

'We begin with the construct of peer culture and examine how children are socialised within it, being shaped by its existing structures and dynamics, yet constantly creating new beliefs and dynamics.' p.10

Peer relations research which illuminates this more rounded, complex depiction of children's peer relations and social development in-action is likely to be more helpful in framing understanding of children's school mealtime social experience.

3.3.3 Focusing on social process in children’s interaction: dynamic connections between children’s peer relationships, everyday interactions and adjustment

This more rounded, dynamic depiction of peer relations can in part be achieved by an empirical focus on relationship-relevant processes themselves (Parker et al., 2015) and, to the extent that they occur in the lunchroom context, may indicate their significance within children’s school mealtime social experience. Examples of both quantitative and qualitative process-focused peer relations research are discussed in this section.

3.3.3.1 Quantitative examples

One approach to describing components of a process is to map findings from numerous (mainly quantitative self- and other-report) studies in a literature review which can help to illustrate the multidimensional nature of a ‘single’ process. However, the problem with creating such a patchwork of evidence based on ‘distant’ measures is akin to that discussed with reference to family mealtime research. The findings are not closely tied to the context – in this case they are not tied to any specific context - and there is therefore no means of knowing which elements apply to school mealtimes. For example, Parker et al., (2015) and Garandeau and Cillessen (2006) address the example of victimisation and bullying. Collectively they provide evidence that it involves an interplay of one-to-one, group relationships with peers and person level factors which will influence its form and impact including that: impact of victimisation on the individual is moderated by victim friendships; bullies may use difficult to detect forms of indirect aggression such as spreading rumours; they may target children with low self-esteem and who blame themselves for the bullying and so are unlikely to defend themselves; bullies are likely to be successful more easily in a group that lacks cohesion whereby the bullying becomes a collective undertaking which itself engenders cohesion. These reviews indicate the likely subtleties involved in the bullying process. However, it has nothing to say about if these apply or how they work in the school mealtime setting where specific forms of

victimisation (e.g. exclusion from school mealtime groups and mealtime insult routines described in 3.2.3) are likely to be at work.

Another approach to examining processes embedded in peer interaction is to use micro-focused observation methods which directly capture features of a holistic process as it occurs. Dishion and Tipsord's (2011) review of research into peer contagion includes examples of the few psychological peer relations studies which have done so. This includes Dishion's own laboratory work on '*deviancy training*' (e.g. Dishion et al., 1996) which involved analysis of videoed interactions of friends. This shows how the association of deviant friendship and deviant future behaviour may be rooted in specific forms of interaction between adolescent boys. Cyclical reinforcement mechanisms or '*feedback loops*' (p.386) were found such that providing positive verbal reinforcement for rule breaking talk was likely to increase the positive feedback received for such talk. Such patterns of talk (i.e. the interaction process) – but not friendship quality - were found to be predictive of self-reported delinquent behaviour two years later. Dishion and Tipsord comment that '*These findings are alarming when one considers that the deviancy training measurement was based on 30 minutes of videotaped friendship interactions in a contrived interaction task*' (p.193) making it likely that the process was prevalent in everyday situations. Indeed, Eder et al. (1995) identified similar mutual reinforcement mechanisms at work in the school mealtime context although in relation to gender stereotyping within joint storytelling (see 3.2.3). As family mealtime researchers have done (3.2.5), analysing recordings as part of a close-up observational approach could be used not only to specify processes occurring during school mealtime rather than the laboratory; but also, as Dishion has done, their connection to peer relationships as well as to aspects of individual adjustment.

Dishion and Tipsord (2011) also indicate the utility of a close-up approach for specifying processes embedded in interactions of younger children. They cite studies from Snyder and colleagues (e.g. Snyder et al., 2008) as rare examples of research on '*microsocial processes*' (p.192) of aggression in a younger age group. They distinguished deviancy training during videoed play between 5-year-olds which

predicted covert forms of antisocial behaviour (e.g. stealing and lying) at 8 years from coercion which predicted overt forms (aggression).

Other social processes, identified by psychological researchers as features of children's peer social experience, may also occur during school mealtimes with possible implications for relationships. For example, engagement in synchronous interaction, originally identified as important for the development of infant-carer attachment relationships (Leclère et al., 2014), has also been associated with subsequent positive peer interactions (Tunçgenç & Cohen, 2018). And '*social synchrony*' has been identified as important for group homophily which is likely to be important for harmonious relationships between group members (Farmer & Farmer, 1996 cited in Gifford-Smith & Brownell, 2003).

3.3.3.2 Qualitative examples

Qualitative approaches which enable more open-ended, holistic examination of social processes have also proved powerful. Adler and Adler's (1998) ethnographic study of pre-adolescent peer influence is cited by a number of peer relations researchers with a quantitative orientation (e.g. Howe, 2010; Brown et al., 2008) because of the insights they provide. They identified exclusion techniques (akin to those identified in the mealtime context) which are used by powerful popular clique members to maintain their own position by controlling the position and behaviour of other group members by making them fearful of permanent exclusion.

Ethnographic work on humour and peer relations contrasts sharply with research which examines humour styles but not interaction processes discussed above. Rather than regarding humour as a characteristic of the individual, Finnish sociologists Huuki et al. (2010) put forward the idea of humour as a significant 'resource' or 'stock' (p370) which forms the basis for humour usage by boys and adolescent males (aged 7-19) to influence status within informal school (Lahelma, 2004) contexts. Drawing on interviews, observations and field notes made over seven years, they provide a sense of the complexity of particular instances of humour usage and their social consequences. As such, humour usage, attitudes to the humour actor and associated peer group interpretation of their humour - which is influenced by social context and

which might vary among individuals involved - may influence the meaning given to a particular incident and in turn its impact on the humour actor's status. For example Huuki et al. show how high status boys could actively and strategically use humour to skilfully maintain friendships, to exclude others and to consolidate status, receiving recognition and admiration for use of both affiliative and aggressive forms of humour for which low status or marginalised boys were likely to be socially penalised or ignored. While these findings are not context specific, this illustrates how behaviour is a product of the social context rather than of the individual and their 'humour style' alone.

In rare instances, developmental researchers have themselves undertaken qualitative analysis of children's observed interactions. For example, Parker & Gottman (1989) analysed conversation between friendship pairs and identified 'gossip' (also identified in the mealtime context above) as the most salient social process in middle childhood explained in relation to children's primary concern at this age with social acceptance and approval and consequent desire to 'buttress' (p.113) their social position. They say,

'Gossip is so central to friendship interaction at this age because it serves at once to reaffirm membership in important same-sex peer social groups and to reveal the core attitudes, beliefs, and behaviours that constitute the basis for inclusion in or exclusion in these groups. As children gossip, they reaffirm the norms and values of their particular network.' p.114

3.3.3.3 Issues arising from the study of children's relationship-relevant social processes

This process-focused research highlights four key points relating to understanding of the significance of children's school mealtime social experience with peers.

First, the study of holistic processes in action can provide better indications of the content of children's daily social experience than studies solely using global measures of their peer relationships, behavioural style and adjustment outcomes. The former can provide explanations as to how a child's peer relationships and adjustment might be linked to social experience which are invisible in the latter. Both quantitative and

qualitative research is informative. In particular, rare quantitative microlevel studies provide strong evidence for the impact of certain types of interaction with peers on socialisation into the norms of a peer group and on adjustment outcomes. And qualitative approaches have provided new understanding of dynamic features of certain types of interaction.

Second, the peer relations research discussed in this section largely ignores the actual context where the interactions studied take place. For example, Dishion et al.'s (1996) work is laboratory based and may lack ecological validity; processes described by Adler and Adler (1998) are largely discussed without reference to setting although sometimes the location of a particular event might be mentioned. In relation to this research, I have supposed that the kind of processes described may be present amongst children during school mealtimes but these studies provide no evidence that is the case. Nor can they say anything about whether such processes might be influenced, encouraged or hindered by the school mealtime or other context as might be expected according to Bioecological theory and evidence from school mealtime research. At the same time, examples of close-up observational peer relations research offer approaches which can enable the study of forms and functions of social processes which are tied to a given context like the school mealtime.

Third, it should be noted that researchers focus on a limited set of processes and there is a particular over-emphasis on processes involving negative impacts on individuals or socialisation into negative behaviour (Allen & Antonishak, 2008; Hartup, 1999; Parker et al., 2015). Bergin et al. (2003) provide a contrasting example of open-ended research which uses focus groups to identify a wide range of positive (prosocial) behaviours (e.g. encouraging or standing up for others) which occur between 11 to 13-year-olds. However, while the authors note that there are advantages to asking young people to identify behaviours (e.g. by allowing the exploration of the meaning of the interactions for those involved), Dishion and Tipsord (2011) say,

'The influence process often occurs outside of awareness; participants may not intend to influence their peers, but they engage in relationship behaviors that satisfy immediate needs for an audience or

companionship, and these behaviors inadvertently influence themselves or others.’ p.190)

It may then be that an open-ended, open-minded approach must in part be used to identify the range of positive and negative social processes which form part of children’s school mealtime social experience but also that observation methods will be essential for identifying those processes and their context-specific nuances.

Fourth, the process-focused peer relations studies (3.3.3) illustrate a complex interplay of repeated moment-by-moment interaction between a child and their peers (e.g. friends, non-friends), the social context of peer relationships (e.g. peer acceptance, friendship) and various forms of individual adjustment (e.g. delinquent behaviour, self-esteem). In this respect, the empirical evidence accords with the school mealtime peer relations model shown in Figure 3-1: **Simplified representation of the school mealtime developmental microsystem based on Self-Determination and Bioecological Theories** and dynamic peer relations models discussed in 3.3.2 and sheds light on relationship-relevant proximal processes. However, it leaves unanswered questions not only about which social processes are relevant to the mealtime context but also a) which peer relationships and b) which forms of adjustment might be relevant.

3.3.4 Defining context-relevant peer relationships

In Chapter 2, I noted that school mealtimes are likely to be important settings for children to interact freely with peers and that they are particularly valued by children themselves as time to spend with friends. As such, conceptualisations and measures of peer relationships typically used by peer relations researchers are useful for understanding the nature and structure of children’s relationships which have been so little examined in the school mealtime setting itself. In these psychological studies, the relationships most commonly examined are friendship and peer acceptance. Friendships have been conceptualised as dyadic and, in pre-adolescence, as based on closeness, reciprocity, similarity and collaboration (Bagwell & Schmidt, 2011). Peer acceptance is used as a measure of status within the wider peer group and is derived from aggregation of peer (usually class or year group) nominations or ratings of liking

for a given child which have often been used to classify children according to sociometric status of popular, average, rejected, neglected and controversial (A. H. N. Cillessen & Bukowski, 2019).

However, other measures of relationships may be required to better capture the multidimensionality of relationships. Authors signal the importance of friendship quality rather than simple presence of a friendship in social experience and related developmental outcomes and note that friendships can be experienced negatively as well as positively (Bagwell & Bukowski, 2018; Hartup, 1996). A relationship may nevertheless be judged a friendship: indeed, the predominant psychological method of identifying friendships by asking children about them implies that they are a subjective phenomenon. (This contrasts with the sociological approach of Nukaga (2008) who argues that complex social relationships are better revealed by ethnographic observation than by sociometric methods and defines children as friends through their frequent proximity and interaction during mealtimes.) The small amount of research on connections between different facets of children's friendship quality and their adjustment indicates some link of friend's helpfulness and sense of friendship security (but not intimacy) with lower anxiety (Wood et al., 2017); and lower depression for girls (Schmidt & Bagwell, 2007). However, they were associated with greater social concern about relational and overt aggression in boys. It is possible then that in the mealtime setting, girls with more helpful, secure friendships will be less anxious and, therefore, perhaps more socially engaged than others whereas boys may be more concerned about interactions and less socially engaged.

In relation to wider group relationships, some researchers have distinguished sociometric popularity (based on liking ratings) from perceived popularity (judged 'popular' by peers) which does not necessarily coincide with being well-liked. Adler and Adler (1998) also demonstrate complexity of group relationships when they show variation in the extent to which they are characterised by equality versus power imbalance and hierarchy.

In addition, the notion of cyclical interplay of relational elements of the social context (e.g. peer group status and/or friendships) with interpretation of, response to and

impact of individual interactions (described with reference to humour usage in 3.3.3.2) points to complexity in the task of understanding the peer relationships when enacted within mealtime social experience. Indeed, Gifford-Smith and Brownell (2003) refer to the implications for peer acceptance of *'the skill with which a child negotiates multiple, embedded relationships in the larger [peer] network'* (pp.270-271). Parker et al. (2015) state that little is known about the integration of friendships and peer group acceptance (status) but draw on a small amount of evidence in this area to describe ways in which there may be an interplay between the two types of relationships:

'...by serving as the broader context in which friendship experiences unfold, groups and social networks presumably shape children's experiences within friendships in significant ways.' p.476

They suggest impacts of groups on friends may be positive (e.g. group interaction can be more enjoyable than dyadic) or negative (e.g. outsiders can introduce difficult conversations between friends). This kind of interplay will be very relevant in the school mealtime setting where friends are sitting to eat amongst the wider (usually Year group) peer group – potentially reducing the predictive value of friendship on its own or of friendship quality - for mealtime interactions.

This issue of complexity of peer relationships as contexts for children's social experience is also foregrounded by my current interest in understanding peer relations in a specific context. Particular groups of peers, and relationships within those groups, may be relevant to a child's social experience in one setting but not another. For example, in my own research (Baines & MacIntyre, 2019b) there was only a partial overlap between others who children reported spending time with during their previous school mealtime and during lunchtime play. This notion of the relevant peer group is proposed by researchers who use social network analysis to identify young peoples' informal peer groups and examine their developmental significance (e.g. Cairns, Xie, & Leung, 1998; Kindermann, 2007; Kindermann & Skinner, 2012). The informal peer group is contrasted with the formal adult designated class or year group which is usually used to assess children's status (peer acceptance). Kindermann has studied the relevance of the informal peer group

(including friends and non-friends within it) to the classroom setting where, for example, he found evidence of influence (small effect sizes) of the informal peer group (drawn from a town-wide cohort and identified by peers as those who 'hang out' together) on children's classroom motivation. It seems likely that the informal peer group may play a greater, more direct role in children's behaviours and associated outcomes in informal settings like the lunchroom where they can freely interact. Indeed, as already mentioned, Craig et al. (2016) found that greater peer acceptance by child reported companions specific to the mealtime predicted (less) peer victimisation better than did whole class peer acceptance.

At the same time, the classroom peer group may still have a degree of relevance to informal contexts such as the school mealtime. This could be because classroom influence spills over into other settings (in line with my theoretical framework which suggest that social experience in different contexts will to some extent be connected). For example, teachers may have a role in determining children's peer acceptance via provision of differential opportunities to perform in typical classrooms where children have little opportunity to freely interact (Howe, 2010) or by seating children next to one another (Hallinan, 1976). This could play out in social experience with formal classroom groups in informal school settings such as when the class eats together in the lunchroom. And Craig et al. (2016) also note that measures of children's peer relationships are likely to reflect their experience with one another both inside and outside the classroom.

3.3.5 Mealtime peer relationships and social competence as forms of child adjustment to school; and as connected to additional aspects of adjustment relevant to informal school and beyond

I noted in Chapter 2 that peer relationships have themselves been treated as a form of well-being – or adjustment - by some researchers. Hargreaves et al. (2021) advocate the view that they are central to being human and at the heart of children's schooling. As such, the value of school mealtime social experience for the individual can be said to depend on the ways in which peer relationships are connected to that experience. And this may in part involve the extent to which the mealtime provides

opportunities to learn socially competent behaviour and so to become well-adjusted in terms of making, maintaining and otherwise navigating peer-relationships in the lunchroom and beyond.

In addition, theory and literature discussed above indicate that forms of social interaction as well as peer relationships may have implications for other forms of adjustment. For example, I have referred to studies which demonstrated associations between aspects of family mealtime interaction and child internalising (e.g. anxiety and depression) and externalising (e.g. acting out); and deviancy training by friends predicting subsequent delinquent behaviour. This quickly illustrates that the term 'adjustment' is used to refer to a range of different phenomena which include forms of behaviour as well as psychological states.

It also raises the question of which forms of adjustment may be connected to informal school mealtime social experience and to mealtime relevant peer relationships. Birch and Ladd (1996) noted that early research in the area of school adjustment was limited in its definition of adjustment to academic progress or achievement. They introduced a broader set of adjustment categories: perceptions (e.g. school liking); affect (e.g. loneliness); involvement (e.g. engagement, absences); performance (e.g. grades). Indeed, there is empirical evidence for associations between various aspects of peer relationships and different forms of adjustment (see, for example, Altermatt and Pomerantz, 2003; Ladd et al., 2000; Maunder & Monks, 2019). Boulton et al. (2011) argue that some forms of school adjustment may be particularly tied to informal peer relationships. They specifically propose that school liking is an attitudinal measure of adjustment which may be connected to peer relationships but independent of academic experience. In a UK sample of 8- to 11-year-olds, they found that '*Perceived peer support*' was a concurrent predictor of school liking and that peer acceptance (ratings of liking by classmates) but not friendship (best friend, number of friends) was a unique longitudinal predictor of school liking over six months.

This finding is not only important for children's enjoyment of school. Birch and Ladd's (1996) elaborated model of school adjustment also indicates that both academic and

socio-emotional aspects of school life are intertwined. And Boulton et al. (2011) cite Ireson and Hallam's (2005) finding that school 'affect/liking' will in turn contribute towards the development of autonomous learning. In this way, peer relationships may have a knock-on effect on aspects of adjustment more aligned to formal aspects of schooling.

Like many of the peer relations studies already reviewed, Boulton et al.'s (2011) questionnaire study does not examine informal social experience - let alone context-specific experience with peers – which may explain the association between peer relationships and school liking. Yet, as already suggested, an informal school mealtime, like the playground, but unlike the classroom, is likely to be a main context for socialising and developing these informal relationships. But while there is little empirical evidence in this area, Pellegrini et al. (2002) do focus on this kind of causal pathway. They found that skilled playground interactions of early years children, in the form of 'facility' with playing games, predicted both subsequent peer relationships and a measure of school adjustment which included school liking. They propose a mechanism whereby socially skilled interaction with peers in the playground may:

'transfer to more general feelings of competence in school. This sense of efficacy in a school context, albeit an informal one, may have resulted in children having a more positive attitude to school.' (Pellegrini & Blatchford, 2002, p.61)

The same process may apply to feelings of competence generated by skilled social interaction with peers during school mealtimes, which may itself be considered a form of adjustment to school. Such interconnections are of key interest in examining the social implications of school mealtimes for individual children. My school mealtime framework (Figure 3-1) also indicates that informal mealtime experience with peers – as well as the peer relationships which are interconnected with this experience - are likely to influence psychological aspects of adjustment (sense of relatedness, social competence and autonomy). These, in turn, will influence additional forms of adjustment (well-being or '*optimal functioning for growth*' in the language of Self Determination Theory (Ryan & Deci, 2000)) whether that be school

liking or something else (e.g. classroom behaviour or academic performance.) In addition, the model suggests the impact of these elements on one another may be bidirectional.

In order to examine such complex interconnections, there is a need to take care in the concepts and measures used. The importance of such accuracy has been underlined by Reschly and Christenson (2012) who discuss school engagement which itself is considered a form of adjustment (Libbey, 2004). They argue that conceptual 'haziness' in empirical studies to date has been a barrier to understanding in this area. They present a complex model which carefully specifies different affective, cognitive, behavioural and academic aspects of the individual indicative of school engagement and their interconnection of these aspects with one another other, with peer and school contexts and with academic, relational and emotional outcomes. Clarity is also important for understanding the connection between school mealtime social experience, peer relationships and the aspects of school adjustment which may be directly connected to that experience. Yet, Libbey has shown that measures of adjustment which might also be assumed to be closely tied to peer relations must be examined carefully. For example, measures of connectedness, attachment or bond to school, which share similar labels and which might be expected to be associated with peer relationships, sometimes include items relating to peer relationships. As such, they involve confounding the separate phenomena – relationships and adjustment - which are of interest here. Examining potential implications of children's school mealtime social experience beyond the lunchroom will require these elements to be clearly distinguished and defined.

3.3.6 Implications of peer relations research

A review of peer relations research provides helpful insights into the dynamic interconnections between

1. The child or person (including forms of the child's 'informal' adjustment)
2. Relational social processes of a kind which may be embedded in children's moment-by-moment interaction with peers during school mealtimes.
3. A complex set of peer relationships

Empirical research provides powerful support for the theoretical indications from Chapter 2 that understanding the value of school mealtime social experience will be well served by a focus on interactions which may constitute relationship-relevant proximal processes during mealtimes and their connection to children's peer relationships and adjustment. This will address a gap in school mealtime research which, particularly in the UK, has touched on but not systematically examined the implications of this social event for children's relationships and individual outcomes.

Central to this effort will be close up observational examination of interactions (potential proximal processes) and also identification of peer relationships which both mealtime research and Bioecological Theory (Bronfenbrenner & Morris, 1998) indicate are, to some extent, specific to the school mealtime context. In this way, I can investigate the potentially distinctive contribution of the school mealtime context to children's social functioning and development. Therefore, since peer relations research has largely neglected this context-specificity, a study of peer relations in the mealtime context may also contribute to that field of study.

3.4 Findings and research methods from the study of children's peer relations in school contexts with relevance for understanding the value of school mealtime social experience

In this section, I consider the much smaller body of work which has examined the connection between children's social experience with peers in other school contexts and their peer relationships.

3.4.1 The relevant peer relationships for the context: an example of social network analysis from breaktime research

I have already mentioned the notion of context-relevant peer relationships. An addition to this discussion comes from breaktime research which used social network analysis to identify playground peer groups and then to examine their characteristics (Baines & Blatchford, 2009; Blatchford et al., 2016). Unlike Craig et al., (2016) who used single child self-reports of five usual eating time companions and assumed

reliability and validity of this method, Baines and Blatchford aggregated multiple observations of playground groups of Year 3 children (7 to 8-year-olds) to determine membership of social networks and the strength of ties between network members (based on number of times children were observed together).

Groups identified using observation in this way have a different meaning to those identified via methods more typically used by peer relations researchers (e.g. Kindermann, 2007) where children's social networks are identified via aggregation of multiple peer reports of 'who hangs around with who'. Farmer and Xie (2013) have argued for the strength of this peer-report approach because judgements draw on children's insider knowledge of factors such as of quality of given relationships, for example, a close friendship. As such, social networks identification incorporates these other aspects of children's relationships. By contrast, in Baines and Blatchford's method, the context-specific group is determined by time spent together regardless of subjective aspects of peer relationships. It can therefore be said to form a context-specific social context for relationships separate from relationships between group members. Use of such an approach to determine mealtime groups, would support rigorous examination of the connection between those who usually eat together (which forms part of their mealtime context) and their peer relationships without conflating the two.

Key aspects of the playground networks identified by Baines and Blatchford (2009; Blatchford et al., 2016) may also characterise mealtime groups. For example, as suggested by child reports in my own research (Baines & MacIntyre, 2019b), they may, like playground networks, be almost exclusively single gender (as is well-established in relation to peer relationships as a whole for children of this age (e.g. Maccoby, 2002)). Another possibility is that the mealtime networks incorporate 'sub-networks' of friendships. Baines and Blatchford's breaktime analysis gave examples of triads of friends where one friendship was dependent on the friendship between the other two children. This provides some degree of challenge to the usual definition of friendships as straightforwardly dyadic (Bagwell & Schmidt, 2011) and such friendship networks may also be found in the mealtime context. Baines and Blatchford also note that playground networks contain non-friends as well as friends,

suggesting that these less strongly tied individuals may be partners in emerging or declining friendships.

However, as considered in the following sections, other aspects of mealtime social experience with peers may be substantially different from that on the playground or in other school contexts.

3.4.2 School contexts: affording differential opportunities for peer interaction

3.4.2.1 Mealtimes affording unique conversational social experience with peers

As suggested at the start of my thesis, the instant impression of children's seated mealtime interactions contrasts sharply with those on the playground where children are often on the move. Bioecological Theory (Bronfenbrenner & Morris, 1998) supports the proposition that such different settings will support and constrain behaviour in different ways so that peer interaction in different school contexts is likely to be different. There is some empirical support for this proposition.

I have already referred (3.2.2) to findings from Golding and Blatchford (in preparation) who drew on Barker's (1968, 2016) methods to consider the 'ecology' of different informal school settings in one secondary school and students' *'standing patterns of behaviour'* in those settings. Using quantitative systematic observations like those which Baines and Blatchford used to identify playground networks, they found higher levels of *'socialising'* (74% of observations) in the lunchroom compared with 50% on the playground and 24% in the halls (corridors). They point to environmental factors, specifically arrangements of tables and chairs, as accounting for their additional finding of larger group sizes in the lunchroom as opposed to the halls and playground. Sitting with larger groups may have encouraged the high incidence of socialising.

It seems likely that the contrast between mealtimes and playground behaviour would be even greater in the primary age group when there are higher levels of playing on the playground. Indeed, a comparatively lower occurrence of conversation in the playground for younger children is indicated by another study by Blatchford and colleagues. Systematic observation of four classes of Year 3 children (Blatchford et

al., 2003) followed up 3 years later in Year 6 (referred to in Baines & Blatchford, 2011) showed children were *'just talking'* in 20% of observations of 7 to 8-year-olds rising to 39% for 10 to 11-year olds. (Engagement in *'playing'* and *'game playing'* reduced from 66% to 51%). Therefore, across the age groups, many children do engage in talk or socialising on the playground so that their social experience may overlap substantially with that in the lunchroom when they are conversing with friends. However, there are also many on the playground who are engaged in other behaviours of *'game playing'*, *'playing'* or *'not interacting'*. The culture of the school playground may, then, determine which types of activity individuals engage in so that a conversational mealtime may uniquely add to the forms of socialising experienced and relationships formed. This may particularly be the case for boys. Blatchford et al.'s study showed that they spent more time engaged in *'playing'* and *'game playing'* (76% at 7 to 8 years; 69% at 10 to 11 years) compared to girls (62% at 7 to 8 years; 37% at 10 to 11 years).

3.4.2.2 Opportunities for relationship development in 'open' and 'traditional' classrooms: relevance for the study of open school mealtime social experience

One example of older classroom research suggests that opportunities afforded for talk between children can indeed extend their peer relationships in quality but perhaps not in quantity. It may be that experience with peers in an open mealtime setting can make a similar contribution to their relationships. Hallinan (1976, 1979) undertook two studies comparing sociometric 'best friend' choices of children (Grades 4-8/ Y5-Y9) in open (including varying teacher or child selected groupings and frequent, prolonged free student interaction) versus traditional (teacher controlled groupings with limited possibilities for free peer interaction) classrooms. In the first study, Hallinan (1976) found that in open classrooms friendship choices were more widely distributed and less hierarchical (i.e. focused on a few individuals) than in traditional classrooms. Hallinan suggests that children in more open settings have opportunities to get to know one another providing a real basis for friendship development among a wide range of individuals within the group. This explanation has been noted in subsequent reviews (Blatchford et al., 2016; Schmuck & Schmuck, 2001;).

However, while more contact may result in more 'real' friendships, it will not necessarily result in more of them. Hallinan (1976) suggests that lack of predicted greater number of reciprocated friendships in open versus traditional classrooms despite more contact with more peers, may be because nominations are limited to friendships based on substantial meaningful experience with one another. This notion of 'real' social experience comes into play again in her explanation of another finding. She found fewer isolates in open classrooms in the first study where friendships were more widely dispersed. However, in the second, there were more isolates in open classrooms as well as fewer cross-gender friendship choices. She suggests (Hallinan, 1979) that in an open setting, children may be more aware of peer group norms around unacceptability of certain relationships i.e. children's peer culture (as opposed to adult rules) is influential. Alternatively, she suggests there may be an impact of greater teacher engineering of social contact in traditional classrooms. This is relevant to Deci and Ryan's (2014) call for autonomy supportive contexts where some children may require support to fulfil their needs for a sense of social connectedness and social competence.

In fact, as already discussed in relation to much mealtime and peer relations research, Hallinan's lack of focus in the different classrooms on peer interactions themselves limits her conclusions about the nature of what seem likely to be complex social processes that may enhance or undermine relationships. Even so, it is worth reiterating the lack of opportunity to freely interact with others that characterise the contemporary UK classroom (Galton, 1999; Howe, 2010; Hargreaves et al., 2021). Hallinan's explanations for her findings suggest that, while this kind of tightly teacher-controlled classroom life may have a bearing on the way children regard one another (as argued by Howe, 2010) and who they encounter, it seems unlikely to provide them with much opportunity for socially meaningful interaction with peers. This adds to the imperative for 'close up' study of conversational peer interactions during open mealtimes which may not otherwise be available to many children in school. Such study is in line with researchers of school breaktime (e.g. Blatchford & Baines, 2010; Pellegrini & Holmes, 2006) as well as of out-of-school activities (e.g. Fredricks & Simpkins, 2013) who have agreed that social interactions and processes relevant to

informal relationships are best studied in settings where children can participate relatively freely in activities which *'are intimately connected with peer social relations'* (Blatchford & Baines, 2010, p.231) like the informal school mealtime and the playground.

3.4.3 Similarity and difference between playground and mealtime interaction: form and content of informal social experience with peers

Research which looks in a more close-up way at the nature of children's playground interaction provides some basis for considering how dynamic day-to-day experience with peers may be connected with peer relationships and aspects of adjustment and how far this experience may be distinct across playground and mealtime contexts.

In their social network analysis, Baines and Blatchford (2009; Blatchford et al., 2016) found variations in predominant playground activities of the different playground networks they identified. I argued in the last section that there may be overlap (as well as difference) in children's social experience with peers during school mealtimes and on the playground to the extent that both involve conversational interactions. Based on selected categories from Baines and Blatchford's study, we might find *'chatting'* (facilitated by seating arrangements) but perhaps not *'grooming'* during mealtimes; and probably not *'chasing or physical, sporty team activities'* or *'rough and tumble play'*.

More rounded micro-level descriptions of social processes come from qualitative research although much of this has focused on the content and function of play and games rather than of *'just talking'* which is likely to be prevalent during mealtimes. One exception is found in Blatchford's (1998) account of *'teasing'* in primary and secondary schools based on interviews with 11 and 16-year-olds. This echoes some of the forms of mealtime talk found by Eder et al. (1995 - see 3.2.3.3) such as *'insult routines'* or *'collaborative teasing'*. Teasing is described by Blatchford as ubiquitous in both phases. He notes that it could be hurtful and emotionally harmful to the recipient but also affiliative. It is described in terms of *'social purpose'* (*'helping to denote limits, showing of sharpness in social discourse, and jostling for status'*); social

skill (in terms of *'determining what form of teasing was appropriate with particular people'*); and importance for peer relationships:

'...for example, it can help to define and consolidate friendships, it can function to define power relations, and it can be used to strengthen group cohesion, sometimes by taunting a scapegoat.' p.161

Responses to teasing at age 11 were 'retaliation' (53%) (of which Blatchford says, *'This is in keeping with a strong sense we had of the centrality to playground life at this age of a revenge or reciprocity norm'* p.128); 'ignoring' (44%); or 'tell the teacher' (27%). Thus, Blatchford's analysis shows potential relevance of playground teasing to a sense of connectedness, of social competence and to children's adjustment. It also shows complexity of the form with different functions or outcomes depending on multifaceted peer relationships of the actors in the wider peer group; the skill, intention and sensitivity of the teaser; and the reaction of the target.

Even though it seems likely that *'teasing'* of this kind takes place across informal contexts, mealtimes, where talk is more prevalent, less interspersed with other activity and where children sit together, may provide a more significant arena for display of this and other forms of talk (e.g. Eder et al.'s (1995) mealtime humour, storytelling, insult routine). Gifford-Smith and Brownell (2003) refer to Hartup's (1996) notion of 'reputational salience' of an attribute as likely to determine friendship choice: as such, aspects of the individual revealed by their talk (e.g. aspects of personality) and which are valued by children may be made salient and form the basis for establishing or maintaining status or affiliations which might not be formed on the playground.

There may be parallel versions of playground social processes which take place during mealtimes but which take a different, talk-based form. For example, Goodwin's (2006) ethnographic/conversation analysis of video footage of one girls' group in a US elementary school over a three-year period includes interactions which took place during playground games and others while the girls ate together in the playground. She focuses particularly on how the girls construct and display status and negotiate a social code through their interactions. One example involves discrepant application

of rules by the group during a game of 'Swingball' to demean and disadvantage low status Angela and her persistent attempts to counter this treatment. In others, Angela is demeaned during conversations when the girls are eating, for example, via insults that are made specifically to her or when she is excluded from sharing of food by the others.

Baines and Blatchford set out ways in which playground games support relationships and social development: as a scaffold for formation of new friendships; to consolidate and maintain friendships and group relationships and develop a sense of group identity; as a forum for falling out and reconciliation; as vehicles for social exploration; as a superordinate goal which encourages integration of children in the context of joint activity (Baines & Blatchford, 2011; Blatchford & Baines, 2010). A process of 'guided participation' (Rogoff et al., 1995) may also enable children to learn games from one another enabling this social engagement and cohesion. It seems likely that the mealtime may also serve as a forum for falling out and reconciliation, for (talk-based) social exploration but perhaps less so that it will provide a superordinate goal to encourage integration of children or be a site for the transmission of games.

Examination of children's playground social experience provides indications of a context which is rich with interactions relevant to children's relationships. Findings discussed above, which indicate some overlap of interactions with the playground, suggest that the same will be true for informal school mealtimes. Sociologist William Corsaro (2018) draws on examples from Goodwin's work both on the playground and outside school (e.g. Goodwin, 1990, 2006) to argue that children's peer relationships are, of necessity, 'situated' within the activities which engage children in specific contexts and can therefore only be fully understood via in-context micro-observation. Both relationships and activities form part of peer culture which Corsaro defines as

'...a stable set of activities or routines, artifacts, values, and concerns that children produce and share in interaction with peers.' p.128

Understanding the specific role of school mealtimes in children's peer relationships will therefore necessarily also involve examination of the mealtime activities or topics of conversation within which the relationships are enacted or produced.

Social experiences with peers during contextualised interactions provide opportunities not only for children to make and maintain friends but for them to learn how to do so. Blatchford and Baines (2010) argue that social freedom in the playground makes for a particularly demanding (socially and cognitively) and, also, particularly motivating environment for children, making it a powerful site for social learning. In line with this, Sluckin (1981) draws on detailed ethological/ethnographic observations of playgrounds in two schools to argue that freedom within the playground provides a forum for learning – often through experience of conflict during games and play – *'skills, attitudes, values and beliefs that are appropriate for life at the time and also are a good preparation for later on'* (p116). This notion of peer relationships as contexts for social development echoes theories particularly focused on the importance of experience within children's close relationships for the development of social maturity (Sullivan, 1953; Youniss, 1980).

I have already mentioned Pellegrini and Blatchford's (2002) suggestion that skilled social experience in the playground (facility with games) may lead to more general feelings of competence and adjustment to school. Given the differences (as well as connections) across the contexts, mealtime social experience may offer opportunities for learning about different (as well as similar) relationally important *'skills, attitudes, values and beliefs'* which are also likely to influence feelings of competence at school.

3.4.4 Implications of peer relations research in school contexts

Unlike most peer relations research, this small ecologically valid body of work has focused on children's social experience and its connection to peer relations in school settings which may influence the form and outcomes of that social experience.

Quantitative observational approaches have been used to identify and describe context-specific peer groups and patterns of interaction. Analysis of peer relations

measures have shown that provision of an open classroom environment can impact on peer relationships with the suggestion that this is because it allows children 'real' interaction with one another. Qualitative study has provided some detailed description of examples of such real experience in the playground (teasing, demeaning) which are likely to have parallel forms in mealtime talk. Research shows variations in form and function of social process associated with such playground interaction with implications for complex multidimensional peer relationships. This real experience offers children opportunities to learn how to negotiate relationships and so may contribute to future as well as current social functioning.

As such, this research of peer relationships in school contexts indicates the value of using close-up quantitative and qualitative methods to study patterns and content of 'real' social experience and relationship processes in context-specific forms. It addresses a gap in mealtime research by showing that these methods can be used to examine whether and how such contextualised forms of experience are connected to peer relationships and social learning, so enabling assessment of the value (or otherwise) for the individual of time spent in a given school context.

3.5 Synthesis of the literature review: relevance of existing research for a study of children's informal school mealtime social experience

In the wider context of diminishing opportunities for children to just 'hang out' with one another detailed in Chapter 2, my research focuses on the value (or otherwise) of children's informal social experience with peers during their school mealtimes. I am specifically concerned with the connection between children's informal mealtime interactions and the peer relationships which theory indicates will underpin children's adjustment to school. Here, I summarise existing research on this topic in relation to my framework statements based on Self Determination Theory and Bioecological Theory also presented in Chapter 2 (see 2.4). I recap the statements in an abbreviated briefer form here:

1. Children's autonomous interactions in the school mealtime context are likely to constitute proximal processes important for current and future relationships and for associated individual adjustment
2. These interactions will to some extent be constrained, facilitated and influenced by the school mealtime context
3. They may also overlap with interactions in other contexts
4. Mesotime methods are used to examine patterns of school mealtime interactions over days and weeks; microtime methods focus on detailed description of their context and functioning during episodes of proximal processes

3.5.1 Context: school mealtimes as a specific social context for peer relations

There is a small but in-depth body of research which has explored the English school mealtime context. Qualitative studies have emphasised constraints placed on children's free mealtime socialising with peers by largely adult organisation of the lunchroom system as well as considerable local variation in organisation. Some examples indicate autonomy unsupportive environments for many children which are likely to limit opportunities for them to satisfy their fundamental needs for a sense of connectedness and social competence. These include very controlled mealtimes where barriers to informal interaction could consist of allocated seating and teacher guidance of children's interactions; or very chaotic systems where they could include noise and frightening behaviour. Yet, even in less obviously extreme cases, research has identified other barriers to interaction such as seating arrangements or pressure to eat quickly which are at odds with children's priority for mealtimes of spending time with friends. Such organisational factors are linked to a combination of national (macro-level) and school (meso-level) policies including those relating to school food and nutrition.

At the same time, UK researchers have done little to explore the informal '*children's space*' which does exist in many UK lunchrooms (Framework Statement 2) and which is where relationship-relevant mealtime experience with peers will take place. Indeed, a small amount of research focused on peer relations in other school settings

indicates that aspects of the mealtime social context (including seating arrangements) may facilitate conversational forms of interaction which children may not have the same chance to practice in other school settings. Mealtimes may therefore offer them distinct opportunities for forming and experiencing peer relationships.

3.5.2 The person: a black box model of mealtime social experience

A large body of peer relations research supports the propositions from Self-Determination Theory that there is a connection between the meeting of fundamental needs for sense of connectedness (via peer relationships), sense of (social) competence (via social behaviour) and various facets of well-being or optimal functioning necessary for constructive social development. As such, this research provides powerful indications that informal mealtime social experience with peers is important for their adjustment to the extent that it is enmeshed with children's relationships and social behaviour. For example, behaviour style (e.g. sociability, aggression and withdrawal of a kind which may be enacted in the lunchroom), sociometric status and various forms of school adjustment are predictive of one another.

However, decontextualized studies which only use global measures of behaviour style lack usefulness in determining the value of school mealtime experience for peer relationships and school adjustment. They also provide limited understanding of children's peer relations as contextualised (Framework Statements 2 and 3). This is because they do not address the question of how behaviour style is connected to a relevant set of peer relationships. In Bronfenbrenner's terms, it lacks a focus on the '*proximal processes*' (repeated interactions of the active individual and the '*persons, objects and symbols in its immediate external environment*') which drive social development, which occur in a context like the school mealtime and which are likely, to some extent, to be particular to that context.

Even when placed in a mealtime context, studies which link general measures (such as family mealtime frequency or school mealtime environment) to child functioning have been uninformative when they do not focus on process.

3.5.3 Person with process (in or out of context)

Understanding the value of school mealtime social experience may be better served by a close-up focus. That experience is more accurately conceptualised as a dynamic cycle than the black box input-output model of children's peer relations described in the last section. This dynamic view sets the child within a particular set of (context relevant) relationships, engaging in daily interactions (forming proximal processes) which feed back into those relationships and into the functioning of the individual child (Framework Statements 1 and 2).

Elements of this cycle have been studied with and without reference to specific mealtime or school environments. Either way, studies using detailed observational methods provide lessons for the study of school mealtime social experience. Quantitative macrotime systematic observations have given indications of broad patterns of interaction (e.g. '*chatting*', '*grooming*', '*gameplaying*' in the playground) of different children over time. Close-up microtime quantitative observation studies have provided indications of mechanisms which connect everyday interaction such as cyclical peer reinforcement of delinquent behaviour or elaboration of family mealtime narratives with measures of individual adjustment. It should also be noted that such studies have been facilitated by the use of video recordings, first to identify potential proximal processes qualitatively and then to quantify them in order to test associations with other measures.

Qualitative studies involving a substantial observation component allow exploration of complex forms of interaction and, sometimes, how they influence and are influenced by peer relationships and peer culture. These might also be termed microtime studies since they involve detailed description of the content and function of proximal processes. Examples include gossip and types of humour usage; teasing or demeaning during school mealtime and breaktime; and school mealtime storytelling. Some examples highlight that similar social processes are embedded in context-specific forms: for example, exclusion may take place by unfair application of game rules in the playground but also by exclusion from seating or sharing food and by highlighting differences in food consumption during the school mealtime

(Framework Statements 2 and 3). Being able to learn about and negotiate such interactions and their variations in different contexts may be important for current and future social functioning.

Review of the literature raises four more important points:

- There is an emphasis on negative interactions and negative outcomes in peer relations research and ethnographic work on school mealtime social processes.
- Psychological peer relations research offers methods for identifying multiple aspects of peer relationships, the context relevant peer group and individual adjustment which can support the study of implications of mealtime social experience for children's individual outcomes so far neglected in school mealtime research.
- Experience of informal aspects of school may be directly relevant to affective aspects of children's functioning such as their feelings about school which may, in turn, have a knock-on effect on other aspects of their adjustment.
- Since participants may be unaware of the relationally relevant aspects of their interactions with peers, the use of observational methods will be key to understanding the nature of children's school mealtime social experience.

3.6 Aim and research contribution of the study, and research questions

The literature review demonstrates that there is a need for further research to understand the implications of school mealtime social experience. The specific aim of my study is to examine the value (or otherwise) of children's informal open school mealtime experience for their peer relationships and adjustment to school. The study:

- Addresses a gap in research on children's social lives and peer relations in school which has mainly focused on their experience with peers on the playground.
- Addresses a gap in research on UK school mealtimes which has mainly focused on nutrition and organisation of school mealtimes.

- Extends the small amount of school mealtime research which has documented social experience with peers by combining observational methods for studying mealtime interactions with a psychological approach to the study of peer relations and individual adjustment.
- Extends methods used by researchers of peer relations on the playground by combining psychological approaches to the study of peer relations with qualitative as well as quantitative observations.
- Contributes to the wider field of study of children's peer relations by adding to knowledge about context-specific peer interactions and their connection to children's current and future social functioning and adjustment.

Through the study, I aim to answer the following questions:

1. What is the nature of children's informal peer interaction during school mealtimes?

As discussed further at the start of Chapter 4, addressing this research question required me to use observational methods to investigate 'the nature' of children's school mealtime social experience. There were several parts to analysis of this data. They involved looking at how much children interacted, with whom and characteristics and content of interaction.

- Quantitative analysis was first used to describe the extent of children's mealtime interaction.
- Next, I aimed to identify the relevant peer group for mealtime peer relationships. This was likely to be those with whom children spend time in the lunchroom. In an open mealtime setting, where children decide with whom they sit and, if different classes and age groups are present at the same time, this mealtime peer group may consist of a wide variety of others. Alternatively, children may stick with preferred smaller groups of others. I, therefore, used repeated observations of mealtime groups to investigate patterns in their composition. Additional social network analysis of these observations was used to identify and describe children's usual mealtime groups.

- Quantitative analysis was then used to describe prevalence of different types of interaction. As explained in Chapter 5, these ‘types’ of interaction included features of interaction (e.g. taking part in to-and-fro conversation versus talking in a sustained manner) and also types of activity (e.g. food exchange/sharing or game playing).
- Qualitative analyses of ‘the nature’ of mealtime interactions had several dimensions. Importantly, given my interest in explanatory processes or mechanisms, it involved microtime examination of social processes embedded in school mealtime interactions which were relevant to initiating, developing, maintaining or undermining peer relationships (e.g. affiliative or aggressive teasing, coordinating one’s actions with others). These processes were intertwined with mealtime activities and topics of conversation and so my qualitative analysis also necessarily involved examination of interaction subject matter: topics of talk (e.g. discussion of computer games, reminiscence) or activity (e.g. singing, playing with football cards).

2. To what extent are children’s informal mealtime interactions with peers associated with their friendships and relationships with the wider peer group?

This question was addressed by testing associations of quantitative measures of individual children’s mealtime interaction with measures of their friendships (best friendships and friendship quality) and of acceptance by their Year 5 peer group.

3. How are children’s informal mealtime interactions with peers associated with their friendships and relationships with the wider peer group?

I extended my qualitative analysis to examine how the social processes embedded in mealtime interactions were connected to children’s friendships and to their acceptance by the specific peers who made up their usual mealtime group as identified by the social network analysis.

4. To what extent are children’s informal mealtime interactions and peer relationships associated with their individual adjustment to school?

Finally, to investigate connections of mealtime social experience with children's broader individual adjustment, I used an affective measure of school liking. This seemed likely to be more strongly connected to informal aspects of school experience than cognitively focused measures such as grades or test results. I tested associations between mealtime interaction measures with this measure of school liking. I also tested associations between school liking and measures of peer relationships.

Chapter 4 Methodology

4.1 Chapter overview and precis of methodological issues

In this chapter, I set out key methodological issues which informed the design of the study, data collection and analysis.

Precis of methodological issues:

- **An observational study:** Observational methods are at the heart of this study since they were needed to describe ecologically valid social processes which may explain the connection between children's informal mealtime interactions and their peer relationships. These included non-participant quantitative mesotime observations designed to capture interaction patterns over a number of weeks and qualitative microtime observations of mealtime video recordings which were used to describe the fine grain of mealtime social processes. Mesotime observations were examined in relation to quantitative measures of children's peer relationships and adjustment to school.
- **Epistemology and validity:** I conducted this research from a realist standpoint, recognising the constructed nature of all methods and findings but also the value and complementarity of my qualitative and quantitative approaches. Approaches appropriate to ensuring validity of each method were used to strengthen findings. Findings should therefore reflect, albeit imperfectly, real underlying social structures and mechanisms. As such, they can be used to establish valid causal explanations as to how mealtime interactions connect to peer relationships.
- **Conceptual clarity:** I make clear distinctions between key study constructs to avoid confounding them when examining interconnections. Peer relationships are regarded as closely connected with everyday interactions but distinct from them; mealtime groups are distinguished from the peer relationships between group members; and, to examine school adjustment, care is taken to use a measure of School liking which is not confounded with peer relationships.

4.2 Design and overview of a mixed methods observational study of children's school mealtime social experience

My study of children's school mealtime social experience consisted of a mixed methods design in two parts. Observational methods were at the heart of the study. As demonstrated by the literature review in Chapter 3, they were necessary for description and examination of holistic, context-specific mealtime social processes. These cannot be captured by more distant global questionnaire measures which, as a result, cannot explain how school mealtime social experience may be connected to peer relationships. Interview methods of a kind used in my own previous work (Baines & MacIntyre, 2019b) are also of limited use for this purpose since children may not even be conscious of (Dishion & Tipsord, 2011b), let alone able to explain, the relatively *'fine grain'* of their interactions which unfold in the moment.

Naturalistic observation of social interaction in context also provides a high degree of ecological validity and for this reason has been advocated by other psychologists. I have already noted Blatchford and Baines' (2010) comment that social interactions and processes relevant to informal relationships are best studied in settings where children can participate relatively freely in activities which *'are intimately connected with peer social relations'* (Blatchford & Baines, 2010, p.231) like the playground, or indeed, the school mealtime. And, in making an argument for the importance of studying behaviour in *'place'*, Heft (2018) makes a case for observation as a key method for psychology with roots in natural history:

'Naturalistic observation - that is, observing and recording the phenomena of interest as they occur in nature without researcher intervention – is its most fundamental methodology.' p.103

Methods used included both quantitative mesotime observations (focused on patterns in interaction over a number of weeks) and microtime qualitative observations (examining episodes of potential proximal processes) (Bronfenbrenner & Morris, 1998). As in Baines and Blatchford's (2009; Blatchford et al., 2016) breaktime research, quantitative systematic observations were used to code children's interactions according to predetermined categories (Research Question 1).

These also allowed testing of associations of mealtime interaction with peer relationships and individual adjustment (RQs 2 and 4). In addition, this study included a substantial qualitative analysis of video footage of children's interactions to allow a more micro-level exploration of relationship relevant social processes (RQ 1). The level of detail and focus on process in this analysis is reminiscent of ethnographic studies of children's social lives including Eder's study of mealtimes in a US middle school (Eder, Evans, & Parker, 1995). Unlike Eder's long-term ethnographic study, access to detail was achieved via close observation during the playing and replaying of video made over a shorter time.

Combining these observations with quantitative peer relations data also enabled my psychological focus on how individual interactions are connected to children's specific peer relationships in the mealtime context (RQ 3). The use of such measures is an innovation in the study of social experience of school mealtimes.

Table 4-1 provides an overview of these methods which are described in detail in Chapters 5 and 7.

Table 4-1: Overview of methods used to study children’s informal mealtime interactions, peer relationships and school adjustment

<p>PHASE 1: A broad mainly quantitative study of mealtime interactions between Year 5 (9 to 10-year-old) children and examination of the association of these interactions with their peer relationships and school adjustment</p>	
<p>Method: Systematic observation of mealtime interactions (4 weeks +)</p>	<p>Method: Peer relations and school adjustment questionnaires</p>
<p>Purpose: To provide a description of children’s mealtimes: how much they interact, how they interact and with whom</p>	<p>Purpose: To establish</p> <ul style="list-style-type: none"> • Best friendship number and quality • Peer acceptance • School liking
<p>PHASE 2: An in-depth mainly qualitative study of mealtime conversations of selected Year 5 children</p>	
<p>Method: Social network analysis of Phase 1 observations used to identify mealtime peer groups and relationships within them</p>	<p>Method: Video recordings (Pairs recorded during 4 eating times); analysis using a Grounded Theory approach</p>
<p>Purpose: To represent mealtime peer groups and relationships with specific relevance to the mealtime context. This informed analysis of interactions in video recordings by identifying the relationships between those who were interacting.</p>	<p>Purpose:</p> <ol style="list-style-type: none"> 1. To provide detailed insight into social processes which may connect everyday school mealtime interactions to children’s peer relationships 2. To examine the content (activities, topics of conversation) of the interactions

Since the concern of the research was to examine the value of social experience in open, autonomous mealtime settings, the study only took place in schools with ‘informal’ organisation of their lunchroom. ‘Informal’ meant that children had a large degree of freedom, at least within their year group, about where to sit, with whom and about content of conversation. Rather than making a comparison with more constrained eating time contexts, the focus here was on providing a detailed description of children’s social lives in these open settings. This ruled out the inclusion of schools where children had a designated place to sit for eating or where adults sat with children to eat.

As already mentioned, the study focused on children in middle childhood (9-10 years - Year 5 of primary school) when their peer relations assume greater importance and develop in complexity (Adler & Adler, 1998; Rubin et al., 2010).

4.3 A realist standpoint

This study came about through opportunities I had to visit school lunchrooms as part of previous research. As such, this project started from an empirical interest rather than a philosophical position and I remain cautious about adopting a wholesale philosophical label or identity. However, I find that a number of concepts from critical realism, particularly the fundamental argument for a realist ontology and constructivist epistemology (e.g. see Alderson, 2013; Maxwell & Mittapalli, 2010), provide a useful rationale for the methodological approach taken in this research and are referred to in the following sections.

4.3.1 The use of mixed research methods: complementarity and causation

Recent acceptance of mixing research methods within a single social science study is reflected in its relatively recent conceptualisation as a '*new research paradigm*' which might involve both mixing of methods and of philosophical '*world views*' (Ghiara, 2020). At the same time, Maxwell (2016) notes that combining methods to examine both general patterns and particular cases is a long-established practice in both natural and social science research and can enrich findings beyond what is possible using one approach or the other. In this study, I chose a combination of qualitative and quantitative methods closely focused on the mealtime context to capture the complexity of mealtime social experience and to do so with a high degree of ecological validity.

Maxwell and Mittapalli (2010) argue that both are consistent with a realist stance which challenges the very notion of binary interpretive or positivist paradigms that are necessarily tied to either qualitative or quantitative methods. Instead Critical Realists (Alderson, 2013) recognise the value of studying phenomena at both the '*empirical*' level of subjective and constructed thoughts, feelings and experiences and '*actual*' level of things, events and their relations. In this study, empirical phenomena could include children's emotional involvement with one another, enjoyment, distress, attitudes expressed during mealtime interactions; children's feelings about one another underpinning their questionnaire responses; as well as my constructed

observations (qualitative and quantitative), questionnaire data and interpretations of that data. 'Actual' phenomena would include actual words spoken by children during mealtimes, their movements and activities, the physical act of eating, the organisation of food and furniture and children's physical following of systems to collect and clear food and furniture.

As such, Maxwell and Mittapalli (2010) note that Greene et al.'s (1989) idea of 'complementarity' may apply between varied methods and associated concepts regardless of whether they are qualitative or quantitative. It involves:

'...elaboration, enhancement, illustration, clarification of the results from one method with the results from the other method' in order 'to increase the interpretability, meaningfulness, and validity of constructs and inquiry results by both capitalizing on inherent method strengths and counteracting inherent biases in methods and other sources.' p.259

The rationale for combining of methods in my study would seem to be usefully reflected in this notion of complementarity. For example, in-depth analysis of videoed interactions elaborated on systematic observations by allowing a detailed exploration of their content, including the social processes which may be embedded in them. In turn, systematic observation data elaborated on the video analysis by providing information about wider patterns of interaction of the children who were the focus of videos. Each observation approach has advantages over and compensates for some of the limitations of the other (see Delamont & Hamilton, 1986; McIntyre & Macleod, 1986). A combination of measures was also used to identify and describe children's multidimensional peer relationships.

However, from a realist standpoint complementarity will still be limited if it only attends to data combined at the empirical and actual levels. In addition, realism offers the possibility of providing causal explanations for findings by attending to empirical evidence of the third 'real' level of '*deeper unseen structures and mechanisms*' (Alderson, 2013, p.58) which are causes of phenomena at the actual and empirical levels and which are intransitive (existing outside our perceptions and thinking). Maxwell and Mitapalli say a realist approach,

'...sees causality as fundamentally referring to the actual causal mechanisms and processes which are involved in particular events and situations.' p.155

Such causes are detected through '*retroduction*' which involves proposing or testing '*the simplest most likely explanation*' (Alderson, 2018) for the body of empirical evidence (regardless of whether it has been collected using quantitative or qualitative methods). This process view of causation aligns with Bronfenbrenner's emphasis on proximal processes as drivers of development (see 2.4.3 and Bronfenbrenner & Morris, 1998) and the need I have highlighted in Chapter 3 to study interaction processes to understand children's peer relations.

In the school mealtime context, causal processes could rest in children's real fundamental psychological needs for sense of relatedness, competence and autonomy; their peer relationships; wider peer and adult culture (including the increasing limitations on children's free time); the mealtime system underpinned by adult-child power relations and by broader school food policies at a local and national level. (Note that the study will primarily focus on proximal processes in the immediate mealtime microsystem but may also detect influence of the wider meso- and macro-systems within which the mealtime context is nested.)

4.3.2 Constructed data and approaches to validity

There are implications for this research of a commitment to a realist view of research as constructed and which takes place at the empirical level. Any research method involves collection of data which is a partial representation of underlying reality as constructed by the researcher and research participants. Thus, observation categories used to code interactions could be varied so that some interactions are coded rather than others; specific definitions of categories could be altered so that given interactions are coded somewhat differently. Qualitative analysis may involve focusing on one aspect of interaction rather than another and different researchers may explain the same event somewhat differently. The measures of peer relations used here involve a particular (although considered) conception of those relationships.

However, not just any categories or interpretations or research method could produce valid data in relation to a particular research question or 'claim' about reality and some evidence will be more valid than others for addressing a claim. Maxwell & Mittapalli (2010) refer to Fox-Keller's (1992) notion of scientific models based on evidence which cannot mirror but can imperfectly represent the world and which possesses adequacy in relation to how well they 'work'. They note that a realist conception of validity is not a property of a particular method or design or particular procedures but of testing a 'claim' using evidence of the '*phenomena that the claim is about.....*' (p.158)

And

'...claims about meanings and perspectives which fall under the general category of interpretive claims, require quite different sorts of evidence from claims about behaviour let alone claims about the relationships between variables.' p.159

As such, the rigour of this (as for other) research involves considering ways in which evidence supports a particular claim and ways that it does not ('a validity threat'). And while typically used 'validity' procedures, Maxwell and Mitapalli say, do not in themselves constitute validity they '*are obviously relevant to the validity of a conclusion*' (p.159). One example of such a procedure used in this study is the testing of inter- and intra-observer reliabilities for the use of systematic observation coding categories. The intention of this is to check for consistency in understanding and use of categories which indicate the degree of consistency to which they are applied to given types of observed behaviour. This is a means of providing clarity about the meaning of a given category and confidence in conclusions drawn using the observation system. An important assumption underlying this kind of procedure is that, within a shared cultural context, – perhaps as in Dewey's pragmatist notion of '*intersubjectivity*' (Biesta, 2010) – meaningful common understandings can be achieved.

Issues of construction and validity are particularly relevant to qualitative analysis of video footage of children's mealtime interactions. Jewitt's (2012) literature review on

the use of video in research sets out both its advantages and disadvantages. For example, as a '*fine-grained multimodal*' and '*durable*' (p.6) record it allows open-ended access to details of social interaction and can '*support an exploratory research design and extended data discovery*' (p.8). At the same time video footage is partial and is '*primarily focused on the material external expression*' (p.8). It may be considered as distorting in terms of what it captures (its focus, its impact on those recorded, recording over relatively short periods of time – discussed in Chapter 7) and how it is interpreted (fragmentation through selection and re-ordering of clips from large amounts of data, the possibility of an over-focus on detail, interpreted without reference to wider context). Validity here will depend in part on clarity about these strengths and limitations of the method when drawing conclusions from the data; in part on rigorous application of procedures used in analysis (for example, the use of preliminary 'line-by-line' coding of actions and processes which keeps analysis close to the data (Charmaz, 2006): see Chapter 7); and in part on adopting a reflective and self-critical approach during my collection and analysis of the data.

4.3.3 The possibility of understanding meanings of mealtime social experience for the non-participant observer

I adopted a non-participant observer position in this study. Although this could not guarantee elimination of reactivity to my presence or to the camera, the intention was to intrude minimally into children's interactions. My approach was slightly different from (Sluckin, 1981) who had no contact with the children he observed. I spent time with them in their classrooms so that they could become familiar and relaxed with me and so that I already had a sense of them as individuals and of their relationships when I arrived to observe in the lunchrooms. I did not, however, interact with them once in the lunchroom.

This meant that, unlike in Eder's ethnographic study, I did not have access to children's accounts of specific interactions. I could then be criticised for lacking understanding of children's empirical level subjective experience of this time. However, I have already noted that children are likely to be unaware of the '*fine grain*' of their interactions which unfold in the moment where they respond to others

without substantial thinking or strategy in relation to their actions. This is despite the fact that these interactions will in some way be an expression of internal life (emotions, beliefs, values, interests). And returning to the argument above that, in a shared cultural context, common understandings are possible, I also assert that valid and insightful interpretations can be made of the social meanings of observable behaviours. For example, the moment when a wide-eyed look passed between two girls in response to what has been said by a third and where they respond little to what she has said demonstrates their exclusion of her. This is highlighted by the contrast with episodes where the pair engage in easy to-and-fro interaction with one another combined with much smiling and laughter on both sides.

This relatively detached observer position has been shared by qualitative observation researchers from a range of perspectives (e.g. Goodwin, 2006; Jordan & Henderson, 1995; Sluckin, 1981). Goodwin, who combined an ethnographic and conversation analytic approach in her video study of girls' constructions of their social organisation, says of her work that

'...ethnographic fieldwork in a particular setting where one observes what takes place in the interaction of participants without the ethnographer's intervention in talk permits us the best starting point for seeing how talk unfolds in the everyday events of people's lives...' p.5

4.4 Regarding conceptualisation of peer relationships, interactions, school mealtime groups and adjustment measures

Issues of conceptual clarity arise in relation to components of this study. In this section I address the distinctions between children's peer relationships, their mealtime interactions, and their adjustment to school.

4.4.1 Multidimensional peer relationships and interactions as separate but related phenomena

As noted in my literature review, in some ethnographic school mealtime studies, researchers have used observations, at least in part, to determine relationships between children (Eder et al., 1995; Nukaga, 2008). Psychological researchers have

also suggested that to do so may be valid. For example, in their review of methods for studying friendship quality, Bagwell & Schmidt (2011) suggest that observations of behaviour can be used as a validity check on child reports of 'friendship quality' (although noting that some behaviours addressed by friendship quality measures are more observable than others). This blurs the line between interactions and relationships. Here I make a clearer distinction between the two things. Whilst agreeing that interactions relevant to social relationships ('relational' interactions) are accessible to a careful and committed observer, I argue that the relationships themselves cannot be discerned by observation because they are not the same thing.

In this research, I regard relationships as stemming from daily social interactions in an incremental and cumulative fashion at the actual and empirical levels (children can be observed spending time together and speaking to one another; they have subjective feelings in response to these interactions). But associated relationships are also real, relatively stable social structures which must, to an extent, transcend those interactions. And in line with dynamic models of peer relations, these transcendent relationships influence moment-by-moment interactions but cannot be reduced to them. One illustration of this is a friendship which last for a long period of time without the friends actually having any kind of contact. Peer relationships are then partly psychological and partly social: friendship and friendship quality exist in the subjective and reciprocal feelings and thoughts of both parties to that friendship; status of an individual exists in the collective regard of members of a particular group. As well illustrated in Chapter 3, peer relationships are also complex and multifaceted and there are possible interactions between different kinds of relationships especially in contexts like the school mealtime where one-to-one relationships are enacted within a larger group. For example, an individual may gain status within a peer group because of a friendship with an individual within that group rather than because of interactions with all the members. Hence, Berndt & McCandless (2011) refer to Hinde's (1979) point that thoughts about relationships may not be directly reflected in children's behaviour so that the best way to find out about their friendships is to ask them. Nevertheless, quality of relationships between individuals is likely to be reflected to some, degree in their interactions.

This simultaneous connection and lack of equivalence between peer relationships and peer interactions is necessary for relationships to evolve: to begin, change in character and end. That is to say, given this separation of relationships and interactions, we can conceptualise daily, varying, moment-by-moment peer interactions feeding into relationships and more slowly evolving relationships feeding back into those interactions. The distinction is also necessary for there to be any possibility of studying the connection between children's peer relationships and their daily mealtime interactions using methods which tap into the two different things.

With these points in mind, it should be explained that in this study quantitative peer relationship measures were examined as a predictor of mealtime interaction measures even though, conceptually, it would also have been valid to test the reverse. This was because the study was cross-sectional, not longitudinal, and so it was assumed that interactions which reflected established relationships might be captured but not so much the reverse. Rather relationships were assumed to be the product of past interactions accumulated over a longer period than examined in this study.

4.4.2 Regarding children's school mealtime groups

Children's mealtime groups are used in Phase 2 of the study as a lens for understanding the connection between mealtime interactions and the specific peer relationships which are experienced in the mealtime context. As discussed in Chapter 3, these are informal groups of a kind which may be more important and salient to children than adult constituted classroom groups.

The approach used to identify groups drew on Social Network Analysis and involved consideration of some key problematic issues in the use of SNA methods (see e.g. Marin & Wellman, 2014). Typically, children's social networks (e.g. Kindermann & Gest, 2011) are based on reports identifying informal group members from different children which are aggregated to determine groups within that cohort. As also noted in Chapter 3, this process may be influenced by children's relationships with, as well as their observations of, one another (Farmer & Xie, 2013). Such confounding was avoided in this study by use of aggregated observation data which Baines and

Blatchford (2009) suggest, '*provides a more accurate view of social network membership and structure*' (p.746) by delineating the physical, context-specific groups from children's subjective relationships. As such the mealtime groups are regarded as social contexts for relationships but not as relationships in themselves; and they are regarded as social contexts for interaction but distinct from interaction since they are based on cumulative seated proximity rather than exchanges between children.

4.4.3 Regarding measures of school adjustment

I discussed in Chapter 3 how varied aspects of functioning have been the focus of measurement of children's adjustment to school. In this study, I followed Boulton et al. (2011) in using a measure of school liking to test whether there are implications for individual adjustment of mealtime social experience. This choice of measure could be criticised for being too narrow to represent school adjustment meaningfully. However, Boulton et al. propose that this is likely to be a form of school adjustment that is more directly associated than others (e.g. classroom behaviour, grades or test scores) to the informal aspects of schooling with which I am concerned. Given evidence of the interconnection between more affective/attitudinal aspects of adjustment (Ireson & Hallam, 2005; Reschly & Christenson, 2012) such as school liking with those more relevant to the formal sphere, feelings or attitudes which constitute school liking may also be key to children's successful functioning inside the classroom.

However, for the purposes of studying interconnections, as with peer relationships and mealtime interactions, it is important to define and distinguish the concepts and measures being used. I have noted that measures of student relationship to school (such as school liking) have sometimes been conflated with their peer relationships. These are not the same thing and I have taken care to avoid confounding them when choosing measures to examine the role of peers in wider adjustment outcomes.

Chapter 5 Phase 1 Methods

5.1 Chapter overview

In this chapter, I describe in detail methods used in the mainly quantitative Phase 1 of my study including recruitment of schools and Year 5 (9 to 10-year-old) children to participate, research tools, data collection and analyses.

As explained in Chapter 3, the study was primarily observational to enable a close focus on ecologically valid aspects of informal school mealtime social experience which were specific to school mealtimes. Since features of children's moment-by-moment interactions were likely to be operating to a large extent outside children's consciousness, they were unlikely to be detected by other methods such as questionnaire or interview. In Phase 1, I used a quantitative systematic observation system because it enabled investigation of mesotime patterns in children's mealtime interactions over a period of weeks. Use of such a quantitative approach also allowed me to extend the observational work by examining associations of mealtime interactions and social context to measures of peer relationships and school liking. As such, I was able to examine some implications of mealtime social experience for the individual child. Phase 1 of the study addressed my research questions 1, 2 and 4:

1. What is the nature of children's informal peer interaction during school eating time?

In Phase 1, I addressed RQ 1 using systematic observations to describe extent of children's mealtime interactions at both a whole group and child level, whether or not children socialised widely (beyond their own gender, class and year group) during mealtimes and the kind of interactions (characteristics, types of activity, content of talk.)

2. To what extent are children's informal eating time interactions with peers associated with their friendships and relationships with the wider peer group?

I addressed RQ 2 by testing the association between measures of peer relationships and extent of mealtime interaction.

4. Are children’s formal eating time interactions and peer relationships associated with adjustment to school?

Finally, I addressed RQ 4 by testing associations of mealtime interaction frequency and of peer relationships with measures of school liking which were used as an indicator of adjustment to school.

An overview of Phase 1 methods is shown in Table 5-1. Since the concern of the research was to examine the value of social experience in open, autonomous mealtime settings, the study only took place in schools with ‘informal’ organisation of their lunchroom. ‘Informal’ meant that children had a large degree of freedom, at least within their year group, about where to sit, with whom and about content of conversation. Rather than making a comparison with more constrained eating time contexts, the focus here was on providing a detailed description of children’s social lives in these open settings. This ruled out the inclusion of schools where children had a designated place to sit for eating or where adults sat with children to eat.

As already mentioned, the study focused on children in middle childhood (9-10 years - Year 5 of primary school) when their peer relations assume greater importance and develop in complexity (Adler & Adler, 1998; Rubin et al., 2010).

Table 5-1: Overview of Phase 1 methods used to study children’s mealtime interactions, peer relationships and school liking

PHASE 1: A broad mainly quantitative study of mealtime interactions between Year 5 (9 to 10-year-old) children and examination of the association of these interactions with their peer relationships and school adjustment	
Method: Systematic observation of mealtime interactions (4 weeks +)	Method: Peer relationship and School liking questionnaires
Purpose: To provide a description of children’s mealtimes: how much they interact, how they interact and with whom	Purpose: To establish <ul style="list-style-type: none"> • Best friendship number and quality • Peer acceptance • School liking

5.2 Phase 1 sample and consent

5.2.1 Recruitment of schools and initial sample

I made an initial approach and requests to participate in the study to headteachers by letter (Appendix 2) then phone call in one urban local authority in the south of England. Interest was expressed by headteachers to whom I had an introduction from colleagues with education training roles in the area (six schools) but not by those who I approached 'cold' (four schools).

I made a preliminary visit to interested schools to meet staff and to observe a Year 5 mealtime to ensure it met criteria for inclusion in the study. There were two criteria for school inclusion. First, since this was a study of children in informal school settings, the school should have an informal mealtime system where children had a large degree of freedom, at least within their year group, about where to sit, with whom and about content of their conversations. Second, the school should have no more than two classes in Year 5. In each study school, my primary focus was on one Year 5 class but, given that it is typical for primary schools in England to have more than one class per year group, examining interactions and relationships across classes was important. However, mapping relationships across more than two classes would have been unmanageable for a single researcher in the time available.

Four schools were finally recruited to take part in Phase 1 of the study. Table 5-2 provides details of their size and demographic characteristics. Data indicated that, overall, the school sample was comprised of a relatively socially mixed group of children. Two schools included a percentage of children eligible for free school meals well above both the local level of 23% and national level of 25% and two below. However, they were less culturally mixed than other schools in the country and, to a lesser extent, than others in the local area. They were all below the national level of 20.8% for children whose first language was not English. They were more varied in relation to the local level of 14% with School 1 above and the others below. And although the schools varied somewhat compared to one another, the figures indicated that they were also likely to have fewer children with special needs than

other schools in the area or the country. The percentage with a statement of special educational needs or education and health care plan were either at (for School 1) or below the national level of 2.9% but all were below the local level of 3.3%.

The schools varied slightly in their gender composition: three were quite close to national levels for girls on roll.

Table 5-2: Information on type, size and demographic characteristics^a of schools involved in the study

	Eligible for FSM ^b	Pupils with a first language which is not English	Pupils with SEN statement/EHCP ^b	Girls on roll
National	24.9%	20.8%	2.9%	48.7%
Local Authority	23%	14%	3.3%	49%
School type and size				
SCHOOL 1: Community school 209 on roll	32.1 %	17.9%	2.9%	49.8%
SCHOOL 2: Community school 190 on roll	41.1%	6.3%	1.6%	46.3%
SCHOOL 3: Voluntary Aided CofE school 385 on roll	19.5%	8%	0.3%	51.4%
SCHOOL 4: Community school 427 on roll	11.9%	7.3%	0.5%	48.2%

a. Source: Department for Education (2017)

b. Abbreviations for school demographic information: FSM (Pupils eligible for free school meals at any time in the past 6 years); SEN statement/EHCP (Pupils with a statement of special educational needs or education, health and care plan)

In one of the schools, there was only one Year 5 class but, in the others, there were two. I undertook observations of mealtime interactions for only one ‘focus’ class in each school, as explained below. However, I collected questionnaire data about peer

relationships from children in both classes since it seemed likely that these would span classes and identifying such relationships required collection of this information from the whole year group. Details of numbers and gender mix in both focus and non-focus Year 5 classes are included in Table 5-3. This shows that for Year 5 in Schools 1 to 3 the proportion of girls was lower than that of the school as a whole; only in School 4 was the proportion higher. Overall, the initial sample included 44.3% girls with 42.3% in the focus classes. This difference was reflected in the final percentage of the focus class girls who took part in the study (42.9% - see next section and Table 5-4) after a small number of children had opted out.

Table 5-3: Size and gender composition of Year 5 focus and non-focus classes

	Number of children in focus Year 5 class		Number of children in other Year 5 class		% Girls in year group
SCHOOL 1:	31		No other Y5 class		
	Girls 15	Boys 16	Girls -	Boys -	48.4%
SCHOOL 2:	26		25		
	Girls 11	Boys 15	Girls 10	Boys 15	41.2%
SCHOOL 3:	25		24		
	Girls 8	Boys 17	Girls 10	Boys 14	36.7%
SCHOOL 4:	32		31		
	Girls 15	Boys 17	Girls 17	Boys 14	50.8%
Total	114		80		
	Girls 49 (42.3%)	Boys 65	Girls 37 (46.3%)	Boys 43	44.3%

Phase 1 data was collected during 5 consecutive weeks of visits to each school with one school visited during each term from Autumn 2016 to Autumn 2017.

5.2.2 Consent for participation and final Phase 1 sample

Careful consideration was given to ethical conduct of the study and avoidance of harm to participants given that research with children is usually considered as involving more than minimal risk (British Psychological Society, 2014). (Details of the approach used are provided in the approved UCL Institute of Education ethics form in Appendix 1.) It was assumed that the potential for discomfort in relation to the systematic observations was minimised by the everyday nature of the mealtime setting, including the presence of familiar companions and the brief intermittent nature of observations made from a distance by a familiar adult (see below). Similarly, the everyday nature of the questionnaire content made it unlikely that it would cause significant upset for most children. (Although see Appendix 1 for measures taken to address this possibility. In particular, children were given reassurance at several points that they did not have to complete the questionnaires.) Therefore, parents (via an explanatory letter – Appendix 3) and children (after a class talk to explain the research) were asked to opt out of this part of the study if they did not wish to take part.

Numbers of children who were observed and who completed all sections of the questionnaire (as described below) are shown in Table 5-4. There were small differences in the numbers who completed specific sections of the questionnaire (as indicated in the specific analyses in Chapter 6).

Table 5-4: Total numbers of children observed and who completed all questionnaire sections in focus and other Year 5 classes (Numbers opted out are shown in brackets)

Total children OBSERVED Focus Classes only		Children completing all sections of QUESTIONNAIRES			
		Focus Classes		Other Year 5 Classes	
105 (8) ^a		105 (9) ^a		68 (12)	
		Girls	Boys	Girls	Boys
		45 (4)	60 (5) ^a	34 (3)	34 (9)
Girls	Boys	Total Children completing all sections of QUESTIONNAIRES in Focus and Other Year 5 Classes			
45 (4) 42.9%	60 (4) ^a	173 (21)			
		Girls	Boys		
		79 (7) 45.7%	94 (14)		

- a. Note: Opt-out numbers are different for focus class boys for observations (4) and questionnaire (5) despite number of participants being the same (60). This is because some opt-outs did not refer to the same children. i.e. One boy was not observed because he was never present in the lunchroom even though he had not opted out. In another case a boy was observed but opted out of questionnaire completion.

5.3 Methods for systematic observation of children’s peer interactions during school mealtimes

5.3.1 Introduction

Systematic observation involves carrying out observations for an explicit purpose using rigorously defined categories and ‘*criteria for classifying phenomena into these categories*’ (Croll, 1986, p.5). Croll sets out further defining features of systematic observation: that it produces quantitative data to be summarised and can be ‘*related to other data using statistical techniques*’ (p.5); and, finally, that:

‘Once the procedures for recording and criteria for using categories have been arrived at, the role of the observer is essentially one of following instructions to the letter and any observer should record a particular event in an identical fashion to any other’ pp.5-6

Phase 1 systematic observations were carried out in line with these principles and focused on aspects of interaction which were observable quickly but which were nevertheless useful for describing the patterns which were of interest in this study. The purpose of the observations was to observe children's school mealtime interactions to find out how much they interacted, with whom they interacted and the frequency of different types of interaction including features of interaction and types of activity (RQ 1). This quantitative approach allowed description of these aspects of mealtime social experience across the whole group but also enabled examination of child-level associations of interactions and measures of peer relationships (RQ 2) and school liking (RQ 4).

In the remainder of 5.3, I describe my school mealtime observation system including development and final use of mealtime interaction categories. (See Appendix 5 for the final School Eating Time Coding Manual.)

5.3.2 Development of the systematic observation system

5.3.2.1 The observation categories: capturing context-specific school mealtime interactions to address the research questions

Robson (2002) states that in an ideal observation coding scheme, categories should be independent of context. However, Pellegrini, Hoch & Symons (2013) emphasise the need to develop categories which are relevant to the research question and to the specific observational context. This was crucial for this research where the study was of social experience in context. As such, substantial time was spent before the full study becoming familiar with informal school mealtime settings as well as with the school mealtime and peer relations literature presented in Chapter 3. My early informal observations of Year 5 mealtimes took place in four schools, first during my earlier school lunchtime study alongside the main questionnaire and interview methods used (Baines & MacIntyre, 2019a) and, then, when volunteering as a helper in another school. In one more school, I later spent time observing more formally – and sometimes helping - and made pilot videos of mealtime interactions.

I drew on my experience in these six different informal school mealtime settings to develop my initial list of coding categories. I explain piloting and revision of my initial coding categories below (5.3.2.4) but for easy reference, I include the final list of categories here in Table 5-5. The system consists of six sets of categories which were coded for each observation made (again see below – 5.3.2.2). Some categories were based on those previously used in playground systematic observation such as social/solitary/parallel engagement (e.g. Pellegrini et al., 2002) or on behaviours noted in mealtime research such as food exchange and sharing (e.g. Thorne, 2005). However, they were also firmly grounded in my own mealtime observations of peer interactions within the Year 5 age group.

Table 5-5: School mealtime systematic observation coding categories (Sets 1-3)

Category set	Category label	Category choice approach for each 10s observation	Area of interaction/ social experience addressed
1. Identity of target, target's groups, adult presence	• Target name	Whole interval	RQ 1 Mealtime peer group identity including gender, class and year group
	• Seated group names • Active group names	Partial Interval – include any present/active during 10s	
	• Adult present	Partial Interval – code if present at all during 10s	
2. Engagement level	• Solitary (Seated alone) • Parallel (Seated alongside others, not engaging socially) • Social (Socially engaged – interacting or attending to interaction)	Predominance Mutually exclusive and exhaustive – choose the predominant one if more than one occurs	RQ 1 How much children interact
3. Talk/ verbal interaction type	• Talk exchange (to and fro)/joint singing or talk • Sustained talking (not to and fro) • Sustained listening (not to and fro) • Intermittent/truncated exchange • Initiates talk but gets no response • Other • No talk	Predominance Mutually exclusive and exhaustive – choose the predominant one if more than one occurs	RQ 1 Type of interaction – Features in flow of talk

Table 5-5: School mealtime systematic observation coding categories (Sets 1-3)(Sets 4-6)

Category set	Category label	Category choice approach for each 10s observation	Area of interaction/ social experience addressed
4. Type of activity	<ul style="list-style-type: none"> • Food exchange/sharing • Food discuss/play • Singing and/or handclapping game • Play game • Reading/writing/drawing • Using phone or electronic equipment • Unoccupied/onlooking • Other • None 	Predominance Code predominant category (more than 5s)	RQ 1 Type of interaction – Target’s activity in addition to talk
	<hr/> <ul style="list-style-type: none"> • Eating 	Partial interval – code if present at all during 10s	
5. Facial expression/ Voice	<ul style="list-style-type: none"> • Laughing • Smiling • Upset/crying • Frowning, scowling whining • Dramatic/animated facial expression • Other • Unobservable (e.g. face in hands) • None 	Partial Interval Code any occurring or ‘None’ if for 10s (If laugh <u>and</u> smile – laugh has priority and is coded)	RQ 1 Type of interaction – Interaction characteristics observable in face and voice
6. Additional observable characteristics of interaction	<ul style="list-style-type: none"> • Physical Animation • Positive affect/intimacy • Rough and tumble/playfight • Negative affect, aggression • Other • None 	Partial Interval Code any occurring or ‘None’ if for 10s	RQ 1 Type of interaction – Other physical interaction characteristics in addition to talk, to activity or to face or voice

In Set 1, the names of the child's mealtime companions for a given observation were recorded. This was necessary to address questions about identity of interaction partners (gender, year group, own or other Year 5 class) and their mealtime peer group. I also recorded here whether an adult was present since I was interested in the extent of adult involvement in children's interactions in the informal lunchroom.

Set 2 '*Engagement Level*' was included to address my question about how much children interacted. The categories were adapted from Blatchford et al.'s (2003) playground observations where they used '*Social*', '*Parallel*' and '*Solitary*' based on Parten's (1932) play categories to define a child's level of social engagement at a particular point. Here, their meanings were adapted somewhat for the mealtime context. So, as in the breaktime observations, *Social engagement* applied to instances where a child was attending to interactions or interacting with other(s). In contrast to the breaktime categories where *Parallel engagement* referred to children playing in a similar way alongside each other, I used this term to refer to instances where a child was sitting with others but not interacting with them. In the breaktime observations, *Solitary* referred to a child playing alone; in my system it referred to children sitting apart from others.

Other categories were designed to address my research question about types of interaction and included three sets of categories intended to capture characteristics of interaction (Set 3 *Talk/verbal interaction type*, Set 5 *Facial expression/voice* and Set 6 *Additional characteristics of interaction*) and one (Set 4) to capture other activities in which children engaged. Categories about characteristics of interaction were largely identified during informal observation of mealtime interactions. Some were drawn from playground research if I had also observed them taking place in school lunchrooms. An example was '*Rough and tumble play*' which has been well documented in the playground (e.g. Boulton, 1994) but which I saw in a more sedentary form during mealtimes. Others were more specific to mealtimes. For example, the category of *Food exchange/sharing* between children was observed during pilot work and had also been identified by other school mealtime researchers (e.g. Thorne, 2005) as playing a role in friendships and status relationships. It was, therefore, included as an interaction activity which was of interest. *Using phone or*

electronic equipment was included since this has been documented as a key development in children's socialising in recent years (Baines & Blatchford, 2019).

The category sets were constructed keeping in mind the aims set out by Pellegrini et al. (2013) that they:

- Require low inference and so can be applied accurately and consistently during coding
- Involve some grouping of physical descriptors according to their social function (e.g. *Physical aggression* versus *Rough and tumble play*) to make the coding scheme meaningful at the level of interest (in this case relationship-relevant behaviour)
- Be manageable to use (i.e. not too many separate categories)

Creating low inference, physically observable categories require that they be rigorously defined as advocated by Croll (1986). The full, final set of definitions is in the coding manual in Appendix 5. They are intended to be detailed and precise so that, once learnt by the observer, they enable consistent coding of equivalent 'events'. Some examples from the manual are as follows:

Extract from Set 1, Target's groups - 'Seated group':

- *This is mainly defined by being seated together. However, at long sets of tables (or sometimes even smaller ones) there may be a space between two sets of children and/or clear orientation of one set of children towards one group and away from another. In this case they would be identified as two different seated groups....*
- *Where a child interacts with the target from a distance (e.g. another table) or comes to join the group temporarily e.g. standing at the table – they will NOT be counted as part of the seated group – although they may be part of the active group if interacting with the target – see below.*

Set 2, Social engagement level:

Solitary – *Target is seated physically alone i.e. not adjacent to others so that it is not easy for them to talk to others without moving to be nearer or raising their voice*

Parallel - *Target is seated with others, likely to be eating side by side with others, but not appearing to engage socially indicated by lack of*

orientation to others e.g. gazing around the room or looking away from the talker repeatedly as if not concentrating; would seem to be unable to immediately join in with conversation as a talker without a period of re-focusing attention.

Social - *Engaging with others as talker or listener – listening indicated by orientation to speakers – with face and maybe also body such that they could join in with the conversation at any point.*

Extract from Set 3, Talk/verbal interaction type:

‘Talk exchange / Joint Singing or Talk’ - *Target is involved in to-and-fro conversational interaction with one or more members of the active group OR Saying the same words simultaneously or in a highly coordinated formulaic way as when chanting as part of a game when there are set responses and turns or when singing together*

‘Sustained talking’ – *Target talks in sustained manner during 10s observation while other(s) listen (as indicated by their orientation to target and/or responsiveness e.g. in terms of nodding or facial expression)*

‘Sustained listening’ – *Target listens in sustained manner as indicated by orientation to talker or talkers – whereby gaze and body may be directed to talker Or (e.g. if talker and listener are side by side) there is some responsiveness in expression or head movement suggesting response to talker. Maybe nods or minimal verbal input (e.g. ‘yes’, ‘mm’)*

I return below (5.3.2.4) to Pellegrini et al.'s (2013) third requirement for manageability of category sets.

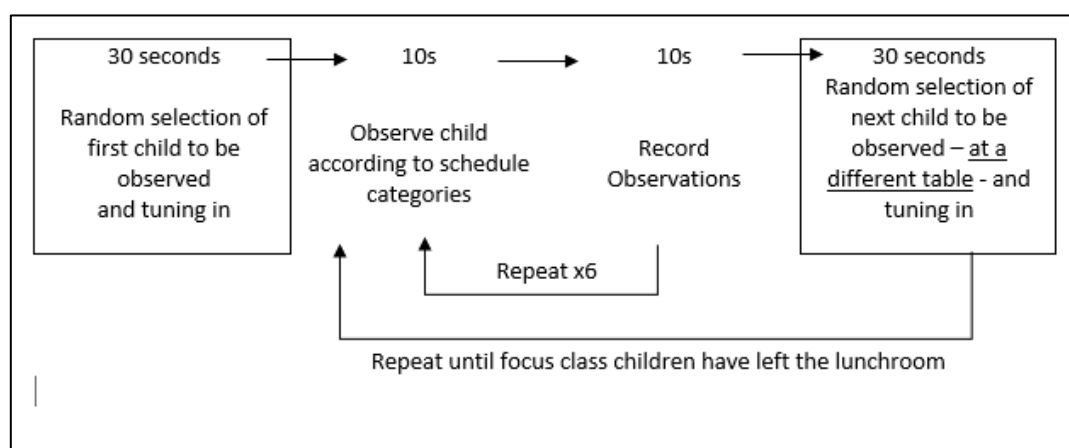
5.3.2.2 Sampling of observations: time sampling, use of category sets and random selection of observation target

The intention of the systematic observation system was to provide a representative picture of the children’s mealtime interactions, as far as possible, without observer bias. This required a design which could capture many instances of interaction across time and across individuals. A diagram portraying the final sampling system (i.e. after the piloting described below) is shown in Figure 5-1.

An important aspect of the system was how it was used to count phenomena of interest. A ‘*time sampling*’ (Croll, 1986) approach was used for this purpose. In contrast to other ways of timing observations (continuous observation of behaviour or counting a behaviour/event each time it happens), time-sampling enabled

categorisation of a number of different aspects of interaction for a given observation. By sampling 10 second segments of interaction repeatedly at regular intervals, the system also provided a means of estimating the prevalence of any aspect or type of interaction across the whole set of observations.

Figure 5-1: Overview of interval time-sampling for systematic observations



The observation system included precise rules for this time sampling. In part, these comprised instructions for deciding which category within each set applied and should be recorded for a given observation (see *Category choice approach* in Table 5-5 above). The method involved several different modes of decision making. For sets 2. *Engagement Level*, 3. *Talk/verbal interaction type* and 4. *Type of activity*, only one category was chosen and, if more than one category occurred during the 10s observation, predominance within the 10s observation (over 5s) was used to decide which single category applied. This is an alternative to whole interval sampling whereby the behaviour is only coded if it takes place across the whole 10s (although in practice it often does) which would risk underestimating the occurrence of an interaction type or activity (Croll, 1986).

On the other hand, for sets 5. *Facial expression/voice* and 6. *Additional characteristics of interaction* and also for *Adult presence*, occurrences of categories were likely to be rare and/or fleeting and partial interval sampling was used such that categories were coded if they occurred at any point during the 10s observation. As Croll notes, this may overestimate occurrence of categories. However, these categories may have hardly been detected at all without this approach.

Also, within Set 1. information was recorded every time for each information/category area.

Another critical aspect of the systematic observation system for providing a representative picture of the children's mealtime interactions without observer bias was the method for random selection of the child to be observed for any observation. Bias could occur, for example, if an observer simply chose which child to observe since they may be drawn to focus on children whose behaviour was most eye-catching such that certain types of interaction were overrepresented. The identification of the child to be observed at any one time was based on a random selection of lunchroom table and seat at that table combined with a randomly ordered list of children showing who was still to be observed in that round of observations for the whole class (see Appendix 5 – first section of the coding manual for details). This sampling system was also designed to avoid observing children seated next to one another in immediate succession. This was to address the problem of interdependence of interactions within the observation dataset. That is, it would not be surprising if children seated together and, so, likely to be interacting with one another, have immediately subsequent interactions which are similar to immediately previous ones. (e.g. They may be telling jokes to one another for a period of time.) Coding adjacent children one after another could therefore exaggerate similarity in their interactions compared to actual variation which occurs over time.

Blocks of 6 time-sampled observations were made for each child rather than a scan of single observations of each child across the class. As with observing adjacent children, this risked some inflation of interdependence within observations for a given child. However, experience in lunchrooms showed that it was time-efficient (e.g. by minimising the need for moving around the room) and increased the total number of observations which could be made within a relatively short mealtime (some children might only be seated for 10-20 minutes during a lunchbreak). Interval coding was used (Robson, 2002a) with 30 seconds allowed to locate the target child before observations began. Then a 20 second interval was timed whereby the target was observed for 10 seconds and their behaviour was coded and recorded in the

subsequent 10 seconds according to the category definitions. This 20s observe/record procedure was repeated until the block of observations was complete.

5.3.2.3 A qualitative element of observations

A final element of the observation system was that, in addition to the predefined codes, a qualitative note was made about specific content or characteristics of interaction during an observation whenever it was possible to see or hear some detail of what was involved. As such these brief qualitative notes were not intended to provide a comprehensive representation of the content of all observations since for most of them this was unknown. Rather, they allowed an open-ended exploration of some of the kinds of talk and interaction which might be taking place. Examples included a note that the target was playing 'Wink Murder', talking about football, that they were saving places for others.

5.3.2.4 Piloting of the systematic observation system.

I piloted an initial set of categories, first using eating time videos of Year 5 children made during pilot visits to one primary school and then live during one lunchtime when the time-sampling procedure for coding was also tested. Finally, during training of a fellow observer prior to co-coding of video clips for inter-observer reliability checks (see Chapter 1), some further confusions were highlighted by differences in coding. Adjustments and clarifications were made to categories in the light of this pilot work. For example, during this process, clarification was made about how to identify someone who was part of an actively interacting group as a listener (i.e. that they should be responding noticeably to the talker by nodding or giving brief acknowledgements such as 'Mmmm' or 'Yeah') and about how to distinguish two different active groups who were seated together by their orientation to members of their own active group. Time-sampling intervals were also altered. The lead-in time to each new set of six observations was changed from 20 to 30 seconds as, in practice, longer was needed to identify the next child for observation. The window for observation and recording of observations was also changed from '10s Observe/5s

Code' to '10s observe/10 second code'. In line with Pellegrini et al.'s (2013) requirement for manageability, with these adjustments and using the recording system described next (5.3.3), I found coding of the category sets could be completed comfortably for each observation.

5.3.3 Final procedures and total numbers of observations

With the aim of collecting a large sample of observations, they were made on an almost daily basis over a period of four weeks per study school. I report the practical aspects of carrying out the observations and their final numbers in this section.

5.3.3.1 Non-participant observation and familiarisation

Prior to the four-week data collection period, I spent a familiarisation week in each school. On these days, I spent a morning or afternoon in each Year 5 class for 4 days and every lunchtime in the lunchroom. During visits, explanations of the research were given to children (verbally in the classroom) and lunchroom staff (via written information sheets provided in advance – see Appendix 4 - and in-person during visits). This time was also used to learn the names of Year 5 children, to become familiar with their routines and with school mealtime organisation and systems.

Crucially, as discussed in Chapter 4, this week was intended to allow children and adults to become used to me, so minimising reactivity to my presence to ensure, as far as possible, validity of my observations. During the whole study, I talked freely to children and adults outside the lunchroom but kept interactions within the lunchroom to a minimum (again, see Chapter 4). During the familiarisation week, as in the actual data collection period, I made observations during the Year 5 mealtimes from a position at the edge of the lunchroom which, as far as possible, had a clear view but was out of the way. My impression was that by the end of this period children largely carried on their mealtimes without paying attention to me.

5.3.3.2 Materials and procedure

During data collection I arrived in the lunchroom, positioned myself and organised my equipment before Year 5 entered. This equipment consisted of a clipboard with

the following information/equipment attached, to enable collection of observations according to the categories and sampling system described above in 5.3.2:

- An overview sheet of coding categories (see Appendix 6)
- A plan of the dining room with tables numbered
- A note with random order of these table numbers
- A randomly ordered list of children in the Year 5 focus class.
- A timer with a silent vibrate function set to a 10 second countdown interval
- A small digital voice recorder with lavelier microphone attached

All observations were recorded on the digital voice recorder. This method was used during Blatchford et al.'s (2003) playground study and was adopted because it allowed quick recording of observation so maximising the number completed. During pilot work described above, I developed the rest of my method of organising equipment for discreetness and efficiency in making observations. The recorder itself was concealed beneath clothing and coding of categories was spoken into a microphone attached to my clipboard. Sheets with random sampling and category information were concealed within the foldable clipboard and could be seen by me with the clipboard slightly open but not by others. Similarly, the timer was attached to the side of my clipboard facing my body. The outside of the clipboard was all that was easily visible to others in the lunchroom and so the set of equipment was surprisingly unobtrusive.

My recorder was switched on before Year 5 arrived in the lunchroom so that I could begin quietly speaking observations as soon as the first seat/child selected for observation was at the table. At the start of a set of six observations, I pressed the 10s timer, which vibrated inaudibly when time was complete, first to 'tune in' to the target's interactions, again to make the observation and again to record my coding for each category set as described above. For example, for a single 10s observation I might record: *'Rami; names of seated companions (if these were unchanged from the last observation I could just say 'the same'); names of active group; social; talk exchange; food play; eating; no face/voice; no other.'*

I repeated the 10s observe, 10s record cycle until the six observations were complete. I then located the next child to be observed according to the random selection procedures and repeated the whole process. Observations continued during the time that children from the target class were seated in the lunchroom.

5.3.3.3 Final number of observations

It was possible to make at least four sets of six observations per child within the time spent in each school with an extra round or two of single observations for each child if time allowed. There were slight variations in the number of observations for a few children due to long periods of absence. Total numbers of observations made are shown in Table 5-6.

Table 5-6: Final numbers of systematic observations

	All children	Girls	Boys
Number of 10s observations	2652	1134	1518
Note: The smaller number of observations of girls reflects the smaller number of girls in the focus classes and therefore included in Phase 1 of the study – see 5.2.1 above			

5.3.4 Validity of the systematic observations: inter-observer reliabilities

First, at the outset of and, second, just after completion of this data collection, I carried out tests of inter-observer and intra-observer reliability respectively to test consistency in observer understanding and application of the categories. I describe these procedures in this section.

Before the start of data collection, a second experienced researcher was trained in the use of the categories to code 10 second extracts from pilot videos of mealtime interactions. Following more than a day of training, both of us simultaneously coded 108 ten-second observations from the videos to enable calculation of inter-observer reliabilities. As in the final study, observations were made in blocks at regular intervals for a given child. After completion of final study fieldwork in schools, I repeated coding of the same 108 instances of interaction from the pilot videos.

Comparison with my own original pre-study coding was used to calculate intra-observer reliabilities.

For *Seated Group Number* and *Active Group Number* (derived from *Seated group names* and *Active group names* in category Set 1 in Table 5-5), which provide interval level data, I calculated intra-class correlations (ICCs). For the inter-observer reliabilities, ICC estimates and 95% confidence intervals were calculated on a mean-rating ($k = 2$), consistency, 2-way random-effects model; for the intra-observer reliabilities they were calculated on a mean-rating ($k = 2$), absolute agreement, 2-way mixed effects model basis. The ICCs ranged between 0.90 and .98 with 95% confidence intervals ranging between 0.85 and 0.99. As such, I judged reliabilities for these categories as good to excellent (Koo & Li, 2016).

For the remainder of categories which were all nominal, I examined reliabilities using both percentage agreements and Kappa statistics with 95% confidence intervals (see Table 5-7). Categories in Sets 5. *Facial expression* and 6. *Additional characteristics of interaction* (as listed in Table 5-5) occurred very infrequently meaning that their reliabilities could not be calculated. As a result, I have reported their frequencies but with the reservation that the findings may be unreliable and I have not used them in any further analyses.

Reliability of category Set 3. *Talk/Interaction Type* was originally poor due to lack of agreement, especially for the *Intermittent/Truncated Exchange* and *Sustained Listening* codes. These were merged with the *Talk exchange/joint singing or talk* and *Other* codes respectively. This meant that *Talk exchange/joint singing or talk* now included instances of both flowing to-and-fro or coordinated interaction and also more intermittent exchanges which had not been reliably distinguished during observations. *Other* now included instances of *Sustained listening* alongside many instances of more intermittent listening and also instances of non-verbal exchange which were not specified in the original observation system. With these adjustments, percentage agreements for all remaining nominal categories ranged from 83.33 to 96.26 and so were judged to be between 'good' and 'excellent' (Tolmie et al., 2011)

and Kappa statistic confidence intervals ranged from 0.63 to 0.99 and so judged to be between ‘moderate’ and ‘almost perfect’ (McHugh, 2012).

This final set of categories were used to derive a set of variables for analysis as explained next.

Table 5-7: Inter- and intra-observer reliabilities for school mealtime systematic observation categories

Category set	Inter- or intra-observer reliability	Percent agreement	Kappa	95% Confidence intervals
2. Main Engagement Level	Inter	96.26 Excellent	0.86 Strong	0.72, 0.99 Moderate to Almost Perfect
	Intra	93.46 Excellent	0.78 Moderate	0.63, 0.94 Moderate to Almost Perfect
3. Talk/ verbal interaction type	Inter	83.33 Good	0.71 Moderate	0.65, 0.77 Moderate
	Intra	83.33 Good	0.72 Moderate	0.66, 0.78 Moderate
<ul style="list-style-type: none"> • ‘Intermittent exchange’ merged with ‘Talk exchange’ • ‘Sustained Listening’ merged with ‘Other’ (‘Intermittent listening’ and non-verbal exchange) 				
4. Main Additional Type of Activity	Inter	86.7 Good	0.78 Moderate	0.68, 0.88 Moderate to Strong
	Intra	84.26 Good	0.77 Moderate	0.68, 0.87 Moderate to Strong
4. Eating?	Inter	91.70 Excellent	0.83 Strong	0.73, 0.94 Moderate to almost Perfect
	Intra	87.96 Good	0.76 Moderate	0.64, 0.88 Moderate to Strong

5.4 Analysis of systematic observation data

5.4.1 Observation- and child-level datasets

I used the coded systematic observation data to construct two datasets whereby the categories which were retained after reliability checks were converted into variables for analysis. The first was an observation-level dataset which included each observation as a single case. This was analysed descriptively to give a picture of interactions and their characteristics across the whole sample of children. It was not suitable for further statistical testing as, because each child had been observed multiple times (usually 24), it violated the assumption of independence within samples (e.g. Field, 2009).

The second dataset was at the child level. For this, all the observations for a given child were aggregated so that each case was a single child. The final variables were in the form of a percentage (e.g. *Percentage social engagement* across observations for that child) or a mean (e.g. *Mean size of seated group* across observations). Since the cases were independent at this child level, they were suitable for inferential as well as descriptive analysis and could legitimately be used to examine associations of the individual child mealtime variables with peer relationship and school liking variables. The variables for each dataset are described in the next sections.

5.4.2 Observation-level mealtime variables and analysis; and analysis of qualitative notes

Observation-level variables are shown in Table 5-8 alongside the corresponding observation categories from which they were derived. (Note that social network analysis used to identify specific members of mealtime groups forms part of the Phase 2 data analysis and is explained in Chapter 7.)

Descriptive analysis of observation-level data addressed RQ1, 'What is the nature of children's informal peer interaction during school mealtimes?' by examining the extent of interaction; composition of mealtime peer groups in terms of gender, year group and Year 5 class; and prevalence of different talk/interaction types and of

additional activity types. This analysis was also used to address RQ2, ‘To what extent are children’s informal eating time interactions with peers associated with their friendships and relationships with the wider peer group?’

Table 5-8: School mealtime systematic observation coding categories with corresponding observation-level variables

Coding Category	Observation-level variables
Target name	Target gender Identity (used for social network analysis)
Seated group names	Number in seated group Number in seated group from own class/other Y5 class/other year group Number of own gender in seated group Identity of seated group members (used for social network analysis)
Active group names	Active group present or not Number in active group Number in active group from own class/other Y5 class/other year group Number in active group of own gender
Adult present	Adult present or not
Engagement level	Predominant engagement level with categories: <ul style="list-style-type: none"> • Solitary • Parallel • Social
Features of talk/ interaction	Talk/interaction type with categories: <ul style="list-style-type: none"> • Talk exchange/joint singing or talk (including intermittent/truncated exchange) • Sustained talking • Initiates talk but gets no response • Other (including Sustained/intermittent listening and Non-verbal exchange) • No talk
Type of activity	Activity type in addition to talk type categories: <ul style="list-style-type: none"> • Food exchange/sharing • Food discuss/play • Singing and/or handclapping game • Play game • Reading/writing drawing • Using phone/electronic equipment • Unoccupied/onlooking • Other
Eating?	Eating or not

Table 5-8 continued: School mealtime systematic observation coding categories with corresponding observation-level variables

The following were further low frequency characteristics of interactions for which reliabilities could not be calculated: their frequencies are reported but with caution

Facial expression/voice	<ul style="list-style-type: none"> • Laughing • Smiling • Upset/crying • Frowning, scowling whining • Dramatic/animated facial expression • Other • Unobservable (e.g. face in hands) • None
Additional observable characteristics of interaction	<ul style="list-style-type: none"> • Physical Animation • Positive affect/intimacy • Rough and tumble/playfight • Negative affect, aggression • Other • None

I supplemented findings from this descriptive analysis of observations with analysis of the qualitative notes which accompanied the coding for an observation whenever additional details could be seen or heard. This was the case for 722 of the 2652 observations (27%). This analysis could not provide a comprehensive representation of interactions which took place because of their brief nature and the fact that much of the specific detailed content of most interactions was unknown. However, the analysis provided preliminary insight into the breadth of Year 5 mealtime conversation topics and activity. It also provided a validity check on the content of interactions in video recordings of children in Phase 2 of the study.

I content-analysed the qualitative notes (Robson, 2002b), adding, merging or modifying categories as new data was added and the analysis progressed. Once the category set was complete, I revisited the full set of notes to check that the categories described the whole body of data and made some final amendments to categories. Categories included 'Topics of talk' (e.g. pets or discussion of food) and 'Activity type' (e.g. game playing or food sharing). Sometimes qualities of interactions were noted such as when interactions were humorous. I further categorised this data according to whether or not interactions were connected to the mealtime context (food or

lunchroom) and whether or not they seemed to be primarily about peer relationships.

5.4.3 Child-level mealtime variables and analyses

Child-level mealtime variables are shown in Table 5-9 alongside the corresponding observation categories from which they are derived.

These extended my observation-level descriptive analysis since they enabled examination of individual variation, for example, in *'Percentage of social engagement'*. They also allowed me to test for gender differences in the mealtime engagement variables.

In addition, the child-level variables were key for addressing RQ2, 'To what extent are children's informal mealtime interactions with peers associated with their friendships and relationships with the wider peer group?' and RQ4, 'Are children's informal mealtime interactions and peer relationships associated with their individual adjustment?' These analyses were carried out using multiple linear regression analyses to test associations with the measures of peer relationships and school liking which are detailed in the next sections.

Table 5-9: School mealtime systematic observation coding categories with corresponding child-level variables

Coding Category	Child-level variables
Target name	Target gender
Seated group names	Seated group mean number
Active group names	Active group mean number
Engagement level	Percentage social engagement (%SE)
Features of talk/ interaction	Percentage talk exchange or joint (%TX)
Eating?	Percentage eating

5.5 Questionnaire measures of children’s peer relationships

5.5.1 Overview, piloting and administration of the questionnaire

Questions about Year 5 peer relationships (along with school liking – see 5.6) were incorporated into a child-completed questionnaire to enable examination of associations between children’s mealtime interactions and relationships with one another. Three different scales/question sets were included with the aim of deriving measures to tap into different facets of children’s complex relationship experience: peer acceptance, best friendships, and friendship quality. These are detailed below.

The questionnaire was piloted with two Year 5 children who were not involved in the study to check that it could be easily understood, and that sufficient time was available for completion of different sections. Minor amendments to questions and to instructions for completion were made as a result. See (Appendices 7a, 7b, 8a and 8b) for the final version.

The questionnaire was completed by all consenting Year 5 children. This included children in Year 5 focus and non-focus classes so that peer relationships across the classes could be identified. I administered it to whole Year 5 class groups at once which was necessary to minimise the time taken for completion and disruption to classroom schedules. However, in a few cases – for example where children had reading or concentration difficulties – arrangements were made to administer the questionnaires to them outside the classroom, individually or in small groups, so that support with reading and focusing could be provided. To avoid fatigue, since the questionnaire had several different sections, it was split into two parts each taking about 20 minutes. One part was completed by children during week three of school visits and the other during week four.

5.5.2 Materials and procedure

At the start of a session pre-arranged with the class teacher, paper questionnaires inside a named cardboard folder were handed out to children who were seated in their usual classroom places. They were also each provided with a pencil and rubber.

I gave scripted explanations for the whole questionnaire and for each separate section (see Appendices 7c, 7d, 8c and 8d). This began with explanation of the purpose of the questionnaire and an instruction to keep their answers private by using their folder and non-writing arm to shield the paper. I worked through examples with the children to demonstrate how to answer questions for the first section of the questionnaire. They were then asked to complete that section and to put their pencil down when they had finished. I then explained the next section of the questionnaire, they completed it and, when finished, they placed the paper inside their folder. I collected folders from children as they finished.

5.5.3 Peer acceptance and rejection

As discussed in Chapter 3 in relation to my research questions, I was interested in whether the formal classroom group remains influential during school mealtime social experience. As such, the peer acceptance (sociometric status) of the children (i.e. relationship of individual children relative to the whole Year 5 group (A. H. N. Cillessen, 2011) was measured using a peer rating system. It was deemed appropriate to use whole year group rather than own class peer acceptance since in the schools where there were two classes, they had all been differently mixed the previous year and so had spent formal classroom time with many children from the other Year 5 class. In addition, the Year 5 classes all arrived for the lunchtimes simultaneously or consecutively and so sat in the lunchroom at the same time. As such, the whole year group potentially formed a salient wider mealtime peer group for a Year 5 child.

On this section of the questionnaire there was a list of all the children in Year 5. I explained to the children,

'The questionnaire gives a list of all the kids in Year 5. You are asked to say how much you like to be with each person. It doesn't matter if they are people who you usually hang around with or not – just say how much you like to be with them.'

They were asked to indicate this by marking a five point 'smiley face' scale next to the relevant child's name (see Figure 5-2 and Appendices 7a and 7c) from a very

unhappy face ('Not at all') to a very happy face ('Very much') with a neutral option in the middle ('Don't mind one way or the other').

Figure 5-2: Five point peer rating scale used by children to indicate 'How much you like to be with each person in Year 5'



Key advantages of this method over more widely used peer nomination methods (whereby children nominate a small number of others, usually 3, who are most and least liked) are that more refined information is collected and is done so with respect to all the children in the group (Maassen, et al., 2000). As a result of individuals opting out of questionnaire completion, children were rated by between 86% and 97% of their year group which is well above the 60% level needed for stable scores noted by Cillessen (2011 - citing Wargo, Aikins & Cillessen, 2007).

Positive (neutral face = 0, small smile = 1, big smile = 2) and negative ratings (neutral = 0, part unhappy face = 1, very unhappy face = 2) were aggregated separately for each ratee to arrive at a raw *Peer acceptance* and *Peer rejection* score and divided by the number of raters to arrive at average rating scores (0-2) for the ratee, so allowing comparison between children rated by different numbers of peers in different schools.

5.5.4 Best Friendships

I asked children to identify up to three best friends (see Appendix 6b and 6c). Their choices were limited to children in Year 5, either in their own or the other class, since the study focused on the association of mealtime interactions and peer relationships within the year group. The limit of three was set for practical reasons of limiting questionnaire length since there was a set of follow-up questions about each of the friendships (see 5.5.5) but also for substantive reasons to minimise the possibility of including less good or non-friendships (Berndt & McCandless, 2011). For the same

reason, and following the approach used in other studies, friendships were only included if reciprocated by both nominator and nominee to ensure a degree of mutuality in the relationship (see also Berndt & McCandless).

Full reciprocated Best friendship data was collected in School 1 and School 2 for all 54 children included in the final datasets and, using this information, they were given a '*Number of best friendships*' rating of 0-3. At least some data was missing for 9 children of the 51 from Schools 3 and 4 meaning that even though they had nominated their best friends, at least one child they had nominated had opted out of the study so that there was no way of telling if that best friendship was reciprocated. For example, Ben might have nominated Seth, Finn and Ted as his best friends and been reciprocally nominated by Seth. However, Finn and Ted both opted out of the study so there was no way of knowing whether they would have also reciprocally nominated Ben had they taken part. It therefore remains unclear whether he has one two or three reciprocated best friends. Since the measure used as a predictor of mealtime interaction/social context was number of reciprocated best friends, it would not have been valid to include Ben in that analysis.

5.5.5 Friendship Quality

Aspects of the quality of children's best friendships were measured using selected sub-scales from the '*Friendship Qualities Scale*' (FQS) (Bukowski et al., 1994). Bukowski et al. report good internal consistency of FQS items within broad band sub-scales with Cronbach's alphas between 0.71 and 0.86 and confirmatory factor analysis demonstrating distinctiveness of the separate scales with a maximum overlap of 54% between them.

The FQS is comprised of five 'broad band' scales three of which are comprised of two 'narrow band' subscales. They are based on characteristics found to be central to children's friendship in previous research. A subset of these subscales was selected from the original questionnaire as shown in Table 5-10 with all 18 questions set out in the questionnaire in Appendix 8b.

Table 5-10: Sub-scales to measure the quality of children’s best friendships taken from the Friendship Qualities Scale (Bukowski et al., 1994)

FQS Broad Band Scale	FQS Narrow Band Scale	No of items^a	Example question^a
Conflict	N/A	4	<i>My friend and I disagree about many things</i>
Help	Aid (perception that friend will provide help)	3	<i>My friend would help me if I needed it.</i>
	Protection from victimisation	2	<i>My friend would stick up for me if another kid was causing me trouble.</i>
Closeness	Affective Bond	3	<i>If my friend had to move away I would miss him/her</i>
	Affective Appraisal	2	<i>When I do a good job at something, my friend is happy for me</i>
Security	Transcending problems (perception that a friendship is strong enough to withstand negative events within the relationship).	3	<i>If my friend or I do something that bothers the other one, we can make up easily</i>

^a See Appendix 8b for full list of questions and how they correspond to subscales.

My decisions to include/exclude given subscales were made both to make questionnaire completion manageable and for conceptual reasons. One scale, *Companionship*, was excluded because it contained items which were likely to be confounded with mealtime interactions themselves. For example, it contained an item ‘*Sometimes my friend and I just sit around and talk about things we like*’. *Security*, *Closeness* and *Help* scales were retained because they related to predictions for my multiple regression analyses based on prior peer relations research as set out next (5.5.6). In addition, since negative aspects of friendship quality have been underexamined, both the *Conflict* scale and one additional item were included: ‘*My friend can brag, show off or boast about doing something better than you.*’ This was with the intention of tapping into ‘rivalry’ as a potential negative aspect of a friendship other than conflict as discussed by Berndt & McCandless (2011).

I asked children to complete this section of the questionnaire for each best friend they had nominated the previous week (so between one and three versions of this section). To ensure that it was completed in relation to each particular friendship, the

friend's name was inserted into each sentence and the relevant male/female pronoun was used. I asked children to read each sentence and to say on a five-point scale how true it was about their friendship with that person ('*Not true*'; '*Might be true*'; '*Usually true*'; '*Very true*'; '*Really true*'). Scores 1-5 were totalled for items within each narrow-band subscale and divided by its number of items to give a score for that sub-scale. In the five instances where a child had omitted a single response, the average of the remaining subscale items was used for that score. Sub-scale scores for all best friendships for a child were then averaged to give a mean friendship quality score (1-5) for each subscale for each child. In four further cases, focus class children did not complete this section of the questionnaire at all: the final sample for analyses using friendship quality scores was therefore 101.

5.5.6 Predictions and multiple regression models for testing associations of peer relationships with mealtime interaction/engagement

Multiple linear regression analyses were undertaken to address RQ2 'To what extent are children's informal mealtime interactions with peers associated with their friendships and relationships with the wider peer group?' As explained in Chapter 4, the peer relationship variables were examined as predictors of interactions/mealtime social context – rather than vice versa - since the moment-by-moment mealtime interactions being currently observed may reasonably be expected to stem from those relationships (while the peer relationships themselves seemed likely to result from accumulation of interactions prior to the observations period).

This involved testing of multiple peer relations variables as predictors of child-level mealtime interactions. The mealtime interaction outcome variables were:

- *Percentage talk exchange/joint (%TX)*. This was selected as a measure of interaction which incorporates a degree of mutuality and coordination in the back and forth or coordinated interaction to which it referred.
- *Percentage social engagement (%SE)*. This was chosen as a measure of extent that children engage with peers to any degree including by just attending to the interactions of others.

These analyses were essentially exploratory. However, previous peer relations research detailed in Chapter 3 gave rise to some tentative predictions.

1. I expected that both friendships (*Number of best friendships*) and peer acceptance/rejection would be predictors of the mealtime outcome variables since friends are likely to be sitting amongst the wider Year 5 peer group during mealtimes.
2. I expected that once *Friendship quality (FQ)* variables were included in the models, *Number of best friendships* would become less important as a predictor. This is because, as noted in Chapter 3, friendships can be experienced negatively as well as positively depending on the particular relationship. Quality of friendship may therefore impact on mealtime interaction beyond presence of best friendships per se.
3. With the previous two points in mind, I would expect a combination of *Number of best friendships*, *Friendship quality* and peer acceptance to provide the strongest prediction of mealtime interactions.
4. More specifically in relation to *Friendship quality*, based on the small amount of previous research referred to in Chapter 3 (Schmidt & Bagwell, 2007; Wood et al., 2017), I predicted that girls with helpful or secure friendships, as indicated by high *Security/Transcending problems* and *Help* scores, (but not intimate/*Close* ones) might be more socially engaged because they have been found to be less anxious and have less social concerns. For boys, on the other hand, such friendships have been associated with greater social concerns. This may lead them to be less socially engaged.

I planned to test these predictions by including different peer relationship variables in regression models in turn:

- *Number of best friendships*
- *Number of best friendships + Peer acceptance + Peer rejection*
- *Number of best friendships + FQ variables*
- *Number of best friendships + FQ + Peer acceptance + Peer rejection*

Gender differences were examined by re-running each of the models and including a gender variable.

As part of these analyses, descriptive statistics and bivariate correlations were examined and tests of fit of final models to the data were made.

5.6 Questionnaire measures of children's school and mealtime liking

5.6.1 School liking scales and reliabilities

Measures of school liking were included in the questionnaire to test the association of children's mealtime interactions (*Percentage social engagement* and *Percentage talk exchange*), and also of their peer relationships, with adjustment to school. The outcome measure used was based on the *School liking* scale of the '*School Liking and Avoidance Questionnaire*' (SLAQ) (Kochenderfer & Ladd, 1996). The 18 items which formed the school liking section of the questionnaire are shown in Appendix 8a and Table 5-11 below. Each item comprised a statement (e.g. '*School is fun*') and, following Boulton et al. (2011) who had used the SLAQ with similarly aged children, children were asked to mark how much they agreed with the statement on a five point scale from '*Disagree a lot*' to '*Agree a lot*' scored from 1 to 5. Items referring to dislike of school (see Table 5-11) were reverse scored.

One item from the SLAQ which was designed for use with young children was changed to make it more age-appropriate ('*School is yucky*' became Q18 '*School is awful*'). An additional item (Q14 '*School makes me feel unhappy*') was added as a more age-appropriate check on Q4 '*School makes me feel like crying*' because of concerns that Q4 was not working well when completed by children at School 1 (see below for information on reliability of Q4). Additional items about specific liking for school mealtimes and playtimes were also added to the school liking scale. This was intended to enable examination of associations between peer relationships and mealtime interactions with liking for the most immediate informal context of those interactions as well as to school more widely.

In order to test the reliability of this amended version of the SLAQ, I carried out a Principal Components Analysis (PCA). This was done using data from 178 children (focus and other Year 5 class members) on 17 of the 18 items in the *School and Eating Time Liking* questionnaire with oblique rotation (Oblimin with Kaiser Normalization) since it was assumed that different aspects of school liking were likely to be related (see Field, 2009). (Question 6 'I like to leave the school lunchroom as quickly as possible' was excluded from the analysis since it correlated poorly (< .2) with all other items.) The Kaiser-Meyer-Olkin (KMO) measure (KMO=.89) demonstrated the sampling adequacy for the analysis and all KMO values for individual items were >.672 so above the acceptable limit of .5 (Field, 2009). Bartlett's Test of Sphericity, χ^2 (136) = 1295.38, $p < .001$, indicated that correlations were large enough for the analysis. The initial analysis showed that data did not fulfil the conditions for using Kaiser's criterion (if less than 30 variables, communalities should be greater than .7) to determine how many components should be extracted and, therefore, the decision was made using the scree plot (Field, 2009).

Based on this, a three-component solution was chosen accounting for 61% of variance in the data. Item loadings in the pattern and structure matrices (shown in Table 5-11) provided very similar results in terms of the items with substantive loadings (>.4). Only one item – 'Q9 Eating times are awful' – was included for Component 3 in the structure matrix but not the pattern matrix and was retained for reliability analysis. The item clusters appeared to be relatively coherent and interpretable and suggest that they represent 1. *General school liking* 2. *Informal social time (Play and Eating) liking* 3. *Mealtime liking*.

Table 5-11: Structure Matrix showing factor loadings for the three component solution for the *School and Eating Time Liking* section of the questionnaire.

Questionnaire items	Component		
	1 'General school liking'	2 'Informal social time (play and mealtime) liking'	3 'Mealtime liking'
Q10 I like being in school	.885		
Q13 School is a fun place to be	.880		
Q1 School is fun	.827		
Q7 I hate school ^a	.823		
Q11 I like to come to school	.817		
Q5 I am happy when I'm at school	.812		
Q18 School is awful ^a	.762		
Q14 School makes me feel unhappy ^a	.735		
Q17 When I get up in the morning, I feel happy about going to school	.686		
Q8 I like play time		.845	
Q16 I hate play time ^a		.746	
Q12 I enjoy talking to other kids during eating times		.666	
Q4 School makes me feel like crying ^{a,b}	.502	.513	
Q2 I like mealtimes			-.822
Q15 I enjoy the food I eat at school			-.744
Q3 I have fun during school eating times			-.735
Q9 Eating times at school are awful ^a			-.468
Eigenvalues	6.84	2.21	1.3
% of variance	40.22	13.02	7.65
Cronbach's α (with Q4 excluded)	.931	.703	.709

^aItems are reverse scored

^bItem excluded after reliability testing

Reliability testing (see Table 5-11) indicated that for both *General school liking* and *Informal social time liking*, deletion of *Q4 School makes me feel like crying* increased Cronbach's α (and it was already suspected that this item did not work well for this age group) and so was deleted from both components. With this adjustment, the reliabilities for *Informal social time liking* (Cronbach's α = .703) and *Mealtime Liking* (Cronbach's α = .709) were both good but for *General School Liking* (Cronbach's α = .931) was '*perhaps too good*' (p.148, Tolmie et al., 2011). This is indicative of

redundancy in the *General school liking* items for children of this age which were with two exceptions (Q14 and Q18 – see above) drawn from Ladd’s original School Liking Scale.

Means of children’s scores on variables included for each component were used as their overall component scores (Tolmie et al., 2011). For children in School 1, where *Q14 School makes me feel unhappy* was not included in the questionnaire (see above – 29 cases) or for any child who had one or two missing question scores (5 cases), a mean of the remaining seven or eight question scores was used as their *General school liking* score. Where there was any missing value for the smaller number of variables which constituted *Informal social time liking* (2 cases) or *Mealtime liking* (1 case), the score for the component was counted as missing.

The correlation matrix for the three component variables (Table 5-12) showed that, as anticipated, they were related to one another. Unsurprisingly, the association was strongest between the two variables which referred to liking for informal contexts, ‘*Informal social time liking*’ and ‘*Mealtime liking*’ ($r(100)=.450, p=.000$). Correlations between those variables and ‘*General school liking*’ were weak.

Table 5-12: Component correlation matrix for three components derived from the *School and Eating Time Liking* section of the questionnaire.

Component	1	2	3
1. General school liking^a	1		
2. Informal social time (play and eating) liking^c	.248*	1	
3. Mealtime liking^b	.272**	.450***	1

Note: ^aN=105; ^bN= 104; ^cN=103

Significance: *p < .05, **p < .01 and ***p < .001

5.6.2 Multiple regression models for testing associations of mealtime interactions/engagement and peer relationships with school liking variables

The school liking variables were examined as an outcome of both mealtime interactions and peer relationships. Since the study was cross-sectional in design, this necessarily involved assumptions that,

- There might be a direct connection between mealtime social experience and school liking such that the interactions themselves were concurrent predictors of school liking. [So, either adjustment is responsive to variable moment-by-moment mealtime interaction; OR there is stability in interactions now that reflects past interactions that have fed into relatively stable school liking being measured now]
- There might be an indirect connection between mealtime social experience and school liking by virtue of the fact that peer relationships which were connected to that mealtime experience were concurrent predictors of school liking. [So, either school liking is responsive to current peer relations; OR school liking is relatively stable but influenced by current peer relationships that have also been stable over a period of time]

I planned to use multiple regression analyses to examine RQ4 'Are children's formal eating time interactions and peer relationships associated with their individual adjustment?' I used the school liking variables (*General school liking, Informal social time liking, Mealtime liking*) as outcomes in my multiple regression analyses. I first examined descriptive statistics and bivariate correlations. Then I planned to test

1. The direct connection between mealtime interaction and school adjustment. This would involve testing mealtime interaction variables (*'Percentage social engagement'* and *'Percentage talk exchange'*) as predictors of school liking.
2. The indirect connection between mealtime social experience and school adjustment. This would involve testing any peer relationship variables found to be associated with school mealtime interactions in my first round of multiple regression analyses as predictors of the school liking variables.

I also planned to examine gender differences by re-running each of the models and including gender as a variable.

Chapter 6 Phase 1 Findings

6.1 Chapter overview and precis of findings

In this Chapter, I present findings from the mainly quantitative Phase 1 of the study. I begin with findings from my systematic observations of 105 children in the four Year 5 focus classes. I use observation- and child-level analyses to describe the peer group context for informal mealtime interactions and the kind of interactions which were taking place. This addresses Research Question (RQ) 1 which asked:

What is the nature of children’s informal peer interaction during school mealtime?

Next, I present findings from my regression analyses. These also use child level variables from the observations and also questionnaire measures of their peer relationships and of their liking for school. First, I examined peer relationships as predictors of mealtime interaction variables. And in the final section I tested mealtime interaction variables and peer relationship variables as predictors of the school liking measures identified using factor analysis described in Chapter 5. These analyses addressed RQ 2:

To what extent are children’s informal mealtime interactions with peers associated with their friendships and relationships with the wider peer group?

and RQ 4:

To what extent are children’s informal mealtime interactions and peer relationships associated with their individual adjustment to school?

Precis of findings 1: The nature of informal mealtime peer interaction

- **Extent of mealtime interactions:** Mealtimes were highly social times. Children were socially engaged (either attending to interactions or actively engaged in them) in almost three quarters of observations, and actively engaged in just over 60%. Children were eating in just over 61% of observations so that, overall,

mealtimes were at least as much about interaction and social engagement with peers as about eating. Engagement with peers was combined with eating in about half of all observations. There was variation in the percentage of observations where individuals were engaged with peers ($M = 73.26$, $SD = 16.41$ for *Percentage social engagement* and when they were eating ($M = 61.75$, $SD = 16.94$) with a correlation between the two ($r(103) = -.36$, $p=.000$ for *Percentage social engagement*). So many children combined social interaction with eating during school mealtimes but there were individuals who spent little time interacting and much time eating, as well as those who spent much time interacting and little time eating.

- **How many others children spent time with and who they were:** Children sat with a mean of 4.27 others ($SD = 1.97$) and, when actively interacting, the mean number in an interaction group was 1.35 ($SD = 0.71$). There were no gender differences in these variables. On average, own gender companions made up over 80% of seated and active interaction groups, and about two thirds of seated groups and three quarters of active groups were from the child's own Year 5 class. Approximately one third of both seated and active groups were from the parallel Year 5 class. A very small proportion of seated groups comprised children from other year groups ($M=6.08\%$, $SD=17.73\%$). They were an even smaller proportion of active groups ($M=2.87\%$, $SD=22.8\%$).
- **Characteristics of interaction:** In approaching half of observations children were involved in a joint interaction or interaction exchange which involved a degree of coordination and mutuality. In a little under one third, interactions could be described as more one sided (e.g. only the target talking or the target only listening). Children laughed or smiled in approximately 14% of observations; they were animated (facially, physically or vocally) in a similar number. A few observations were of interactions involving positive affect (56) or rough and tumble play (25). There were only 5 observations of negative affect/aggression.
- **Types of activity/content of interaction:** Children engaged in activities in addition to talk in just over 16% of observations. They included activities which revolved around food (e.g. playing with food) or others that might be facilitated by sitting

around a table (e.g. play or games). I found no gender differences in frequency of such activity. Qualitative observations provided examples of interactions which were primarily relational. They were both mealtime-related (e.g. *Seat saving* and *Food sharing*) and unrelated (e.g. *Planning joint activity* and *Gossiping*). Other interactions were less obviously relational but, nevertheless, provided the material for children's engagement with one another (e.g. *Discussion of food items of interest*, *Game playing*, *Making comical faces*.)

Precis of findings 2: Extent of associations between mealtime interactions, peer relationships and adjustment to school

- **Peer relationships as predictors of mealtime interaction:** I tested peer relationships as predictors of two mealtime interaction outcome variables: 1. *Percentage talk exchange/joint (%TX)* - a measure of interaction which incorporates a degree of mutuality and coordination 2. *Percentage social engagement (%SE)* - a measure of extent to which children engage with peers to any degree including by just attending to the interactions of others. Once friendship quality (FQ) and peer acceptance were controlled for, *Number of best friendships* was not a significant predictor of either outcome variable. *Security/transcending problems* (perception that friendship is strong enough to withstand negative relationship events) was the only significant FQ predictor but only for %SE ($\beta = 0.29$, $p = .028$). When both FQ and peer acceptance variables were included, *Peer acceptance* was the strongest predictor for both %SE ($\beta = 0.55$, $p = .000$) and %TX ($\beta = 0.35$, $p = .017$). For %SE, *Peer rejection* was also a significant predictor ($\beta = 0.33$, $p = .015$). The final regression model for %SE, where *Peer acceptance*, *Peer rejection* and FQ *Security/transcending problems* were significant predictors, accounted for 25% of variance in mealtime social engagement. The final regression model for %TX, where *Peer acceptance* was the only significant predictor, accounted for 17% in the mealtime interaction variable. There were no gender differences.
- **Mealtime interactions and peer relationships as predictors of school liking:** Bivariate correlations provided no indication of associations between the predictor

mealtime interaction variables (%SE and %TX) or peer relationship variables (*Peer acceptance, Peer rejection, FQ Security/transcending problems*) with any of the three outcome school liking variables (*General school liking, Informal social time liking, Mealtime liking*). As a result, I did not proceed with regression analyses.

6.2 Phase 1 findings about the nature of children's mealtime interactions

In this section, I address RQ1 which asked:

What is the nature of children's informal peer interaction during school mealtime?

Analyses addressed how much children interacted with peers during mealtime; how many others they spent their mealtimes with and who those children were in terms of gender, year group and class group; and the types and content of their interactions.

6.2.1 Extent of interaction: school mealtimes as social context?

6.2.1.1 Extent of mealtime engagement with peers

Analysis of frequency of different engagement levels (*Social, Parallel, Solitary*) at observation-level showed that, overall, mealtimes were highly social times. In almost three quarters of observations children were *Socially engaged* with others (see Table 6-1). In almost 80% of these cases where children were *Socially engaged* (either actively interacting or attending to interaction), they were also part of an *Active group* i.e. actively interacting with others. This active interaction constituted 61.4% of the whole set of observations.

Conversely, children were not engaged with peers for a substantial proportion of their mealtimes. In over a third of all observations (38.6%) children were not actively engaged with others and in over a quarter (26.8%) they were not socially engaged with them (i.e. not even attending to them) (again see Table 6-1). This was nearly always when they were seated alongside peers (*In parallel*) since children were very rarely seated alone (*Solitary*).

Table 6-1: Main engagement level by *Active group present* crosstabulation (N=2649)

Engage ment level	Active group present?				Total (and % of all obs)
	No		Yes		
	Frequency	% within engagement level	Frequency	% within engagement level	
Solitary	38	97.4%	1	2.6%	39 (1.5%)
Parallel	584	87.0%	87	13.0%	671 (25.3%)
Social	399	20.6%	1540	79.4%	1939 (73.2%)
Total (and % of all obs)	1021 (38.5%)		1628 (61.5%)		

Note: In one of 39 cases where a child was mainly solitary and 87 (13% of 671) cases where a child was mainly in parallel, children were also actively engaged with others. This was possible because 'Engagement Level' was coded according to whichever category was predominant within a 10s observation, whereas an active group was recorded if it was present for any time during the observation.

The observation-level findings did not only reflect ebb and flow in the interactions of individual children (i.e. that they interacted at certain points during the meal and not others). Analysis at the child-level showed that there was variation in the extent to which different individuals actively interacted or attended to social interactions during their mealtimes. This is apparent in the distribution of *Percentage social engagement*' ($M = 73.3, SD = 16.4$) (although there was a skew towards high levels of engagement) and *Percentage active group present* ($M = 61.3, SD = 17.8$) of the 105 focus class children. Histograms for these variables (see Figure 6-1 and 6-2) highlight the variation between children, showing a range from children who were engaged with peers all the time to those who were engaged for a third or less of observations. As such, the social aspect of mealtimes seemed to be more of a feature of some children's mealtimes than others.

Figure 6-1: Histogram showing distribution of children's *Percentage social engagement* (N = 105)

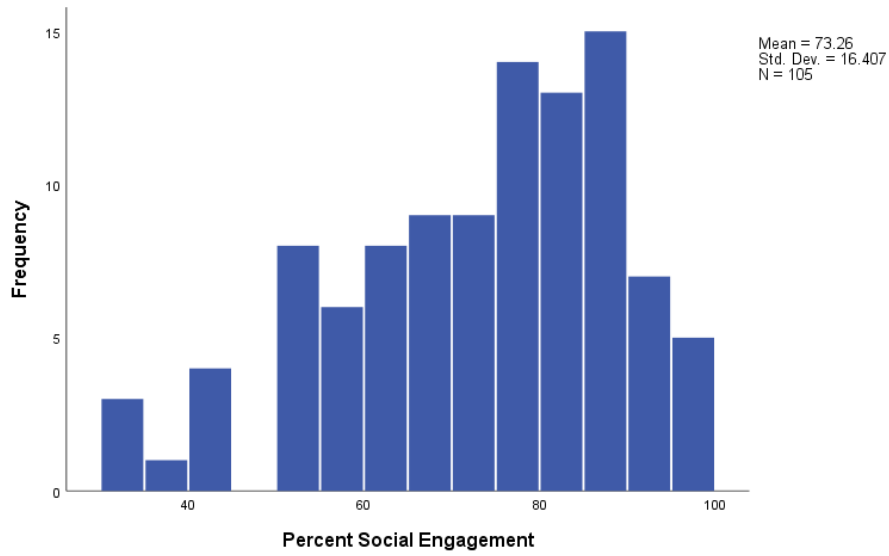
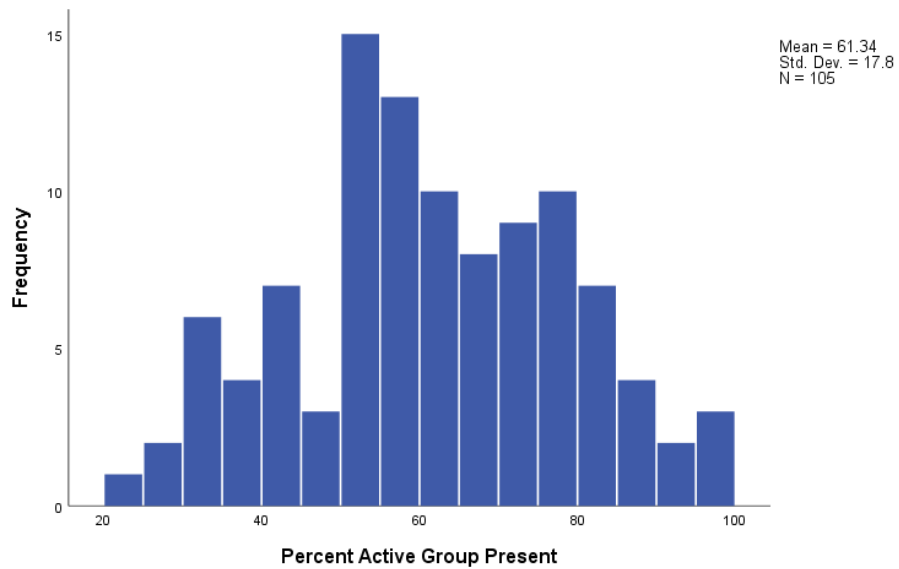


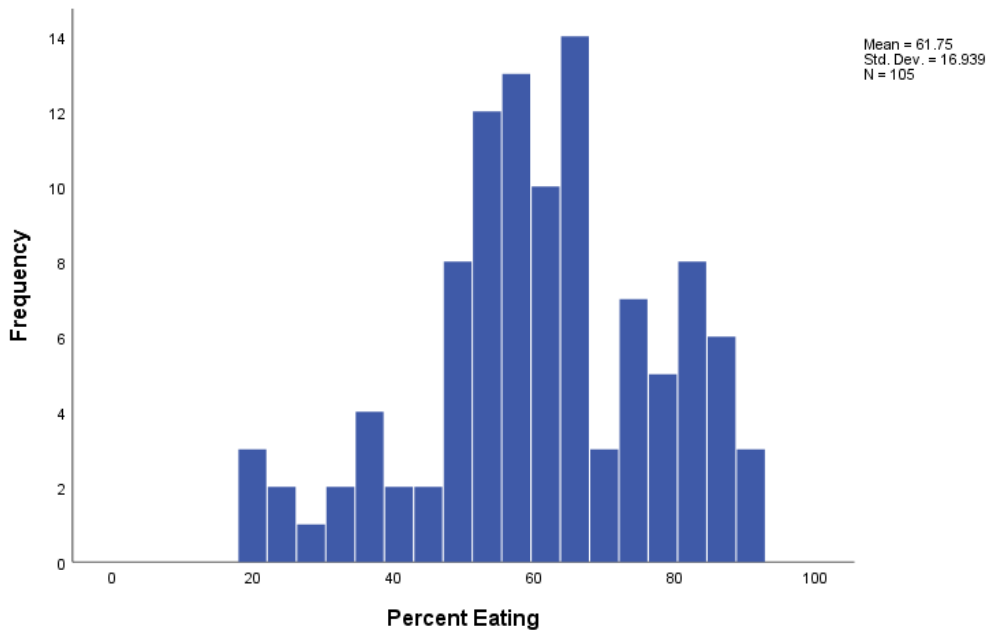
Figure 6-2: Histogram showing distribution of children's *Percentage active group present* (N = 105)



6.2.1.2 Eating and mealtime engagement with peers

There was also variation in the percentage of observations where children were eating ($M = 61.8$, $SD = 16.9$; see Figure 6-3). This raised the possibility that for some children mealtimes were more about eating than socialising.

Figure 6-3: Histogram showing distribution of children's *Percentage eating* (N=105)



Indeed, crosstabulations of engagement level and eating for the observation-level data (see Table 6-2) indicated a pattern of solitary or parallel engagement being more associated with eating (over 80% of observations) than social (just over half). The proportions were similar for association of eating with no active engagement (see Table 6-3) with peers (78.9%) versus active engagement (51.0%). Therefore, eating did not necessarily go alongside lack of engagement with others, but it was more likely to occur than when children were socialising. Social time overlapped approximately equally with eating and not eating. This was the case when children were actively interacting: see *Active group present* where 51.0% of observations went alongside eating. The figure is slightly higher (54.5%) for *Social engagement* when they might have been attending to interactions in some observations rather than actively interacting.

Table 6-2: Crosstabulation of school mealtime engagement level and eating (N=2649)

Engage ment level	Eating?				Total (and % of all obs)
	No		Yes		
	Frequency	% within engagement level	Frequency	% within engagement level	
Solitary	6	15.4%	33	84.6%	39 (1.5%)
Parallel	126	18.8%	545	81.2%	671 (25.3%)
Social	882	45.5%	1057	54.5%	1939 (73.2%)
Total (and % of all obs)	1014 (38.3%)		1635 (61.7%)		

Table 6-3: Crosstabulation of school mealtime *Active group present* and eating (N=2652)

	Eating?				Total (and % of all obs)
	No		Yes		
	Frequency	% within active group present/ not	Frequency	% within active group present/ not	
Active group not present	216	21.1%	808	78.9%	1024 (38.6%)
Active group present	798	49.0%	830	51.0%	1628 (61.4%)
Total (and % of all obs)	1014 (38.2%)		1638 (61.8%)		

Again, the child-level data showed that there was variation for individuals in the extent to which mealtimes combined engagement with peers and eating. There were negative correlations between percentage of instances where individual children were socialising with peers and *Percentage eating*: $r(103) = -.36, p=.000$ for *Percentage social engagement*; and $r(103) = -.31, p=.001$ for *Percentage active group present*. So, many children combined social interaction with eating during school

mealtimes but there were individuals who spent little time interacting and much time eating, as well as those who spent much time interacting and little time eating.

6.2.1.3 Gender differences in mealtime engagement with peers

There was no difference in extent of mealtime interaction for boys and girls. Mean levels for the 45 girls and 60 boys were similar for both *Percentage social engagement* (for girls, $M = 72.7$, $SD = 15.9$; for boys, $M = 73.7$, $SD = 16.9$) and *Percentage active group present* (for girls, $M = 60.7$, $SD = 15.6$; for boys $M = 61.9$, $SD = 19.4$) and there were no significant differences.

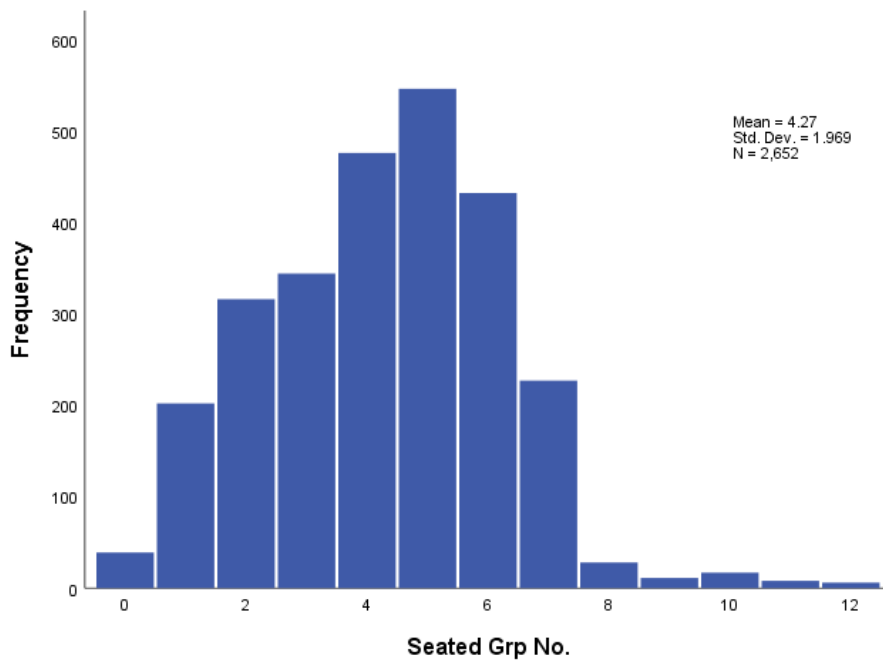
Percentage of eating for boys was very slightly higher than for girls ($M = 63.7$, $SD = 16.2$ versus $M = 59.2$, $SD = 17.7$) although the difference was also not significant. However, there was a somewhat more pronounced tendency for girls to spend less time eating the more they actively interacted (*Percentage active group present*) with others, and to spend more time eating the less they actively interacted ($r(43) = -.44$, $p = .002$ for girls; $r(58) = -.24$, $p = .071$ for boys). This difference did not apply to *Percentage social engagement* where children might just be attending to interactions ($r(43) = -.38$, $p = .005$ for girls; $r(58) = -.35$, $p = .006$ for boys).

6.2.2 How many peers (and adults) did children spend mealtimes with and who were they?

6.2.2.1 Number of other children in seated and active groups

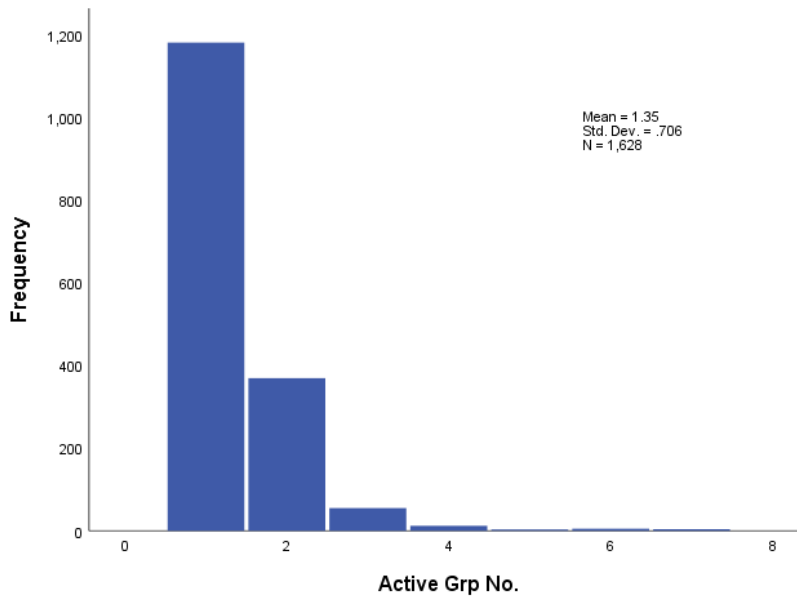
Children sat with a mean of 4.3 others ($SD = 2.0$) (see Figure 6-4). Note that the number of those seated with the target was constrained by the table size which was often although not always 8; it was never smaller and sometimes larger when schools set out tables in longer rows.

Figure 6-4: Number of others seated with child



Children's active group size was smaller than seated group size. In those cases where they were actively interacting (N=1628), children interacted with a mean of 1.4 others ($SD = 0.7$) (see Figure 6-5). When children were actively interacting, it was most commonly with one other. This shows that children generally actively interacted with a subsection of their seated group at any one moment and, in line with this, crosstabulation showed that in 85.9% of observations of active groups, the active group was smaller than seated group.

Figure 6-5: Number of others in active interaction groups



Child-level data showed little variation between individuals in the mean number in active groups ($M = 0.8$, $SD = 0.3$ - see Figure 6-6) i.e. those they interacted with at any one time. There was more variation in the mean number they sat with - seated group mean number ($M = 4.3$, $SD = 1.0$ – see Figure 6-7) – and could potentially interact with over time.

Figure 6-6: Mean number of others in child's active interaction groups

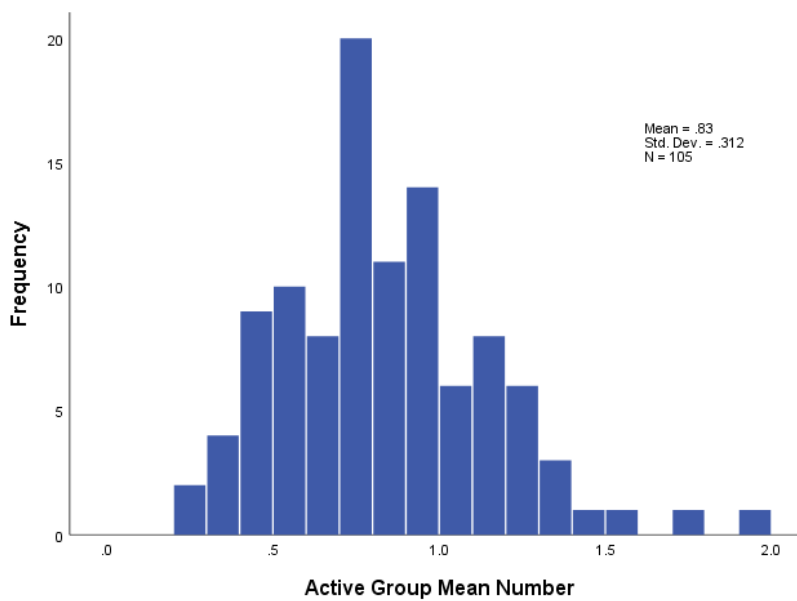
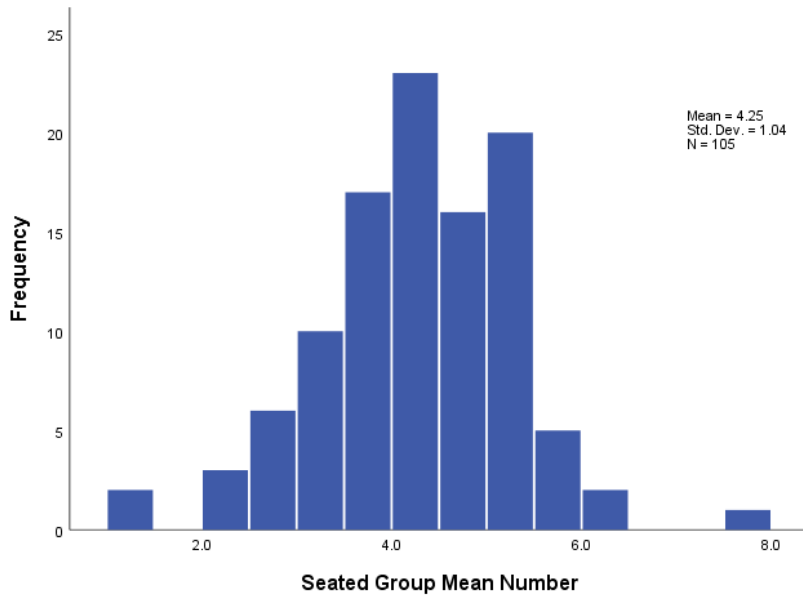


Figure 6-7: Mean number of others seated with child



There were no gender differences in these mean seated or mean active group sizes.

6.2.2.2 Own and other gender peers

Children mainly but not always sat and interacted with own gender peers (Table 6-4). The mean percentage of own gender peers in both seated groups and active groups was over 80% and of other gender peers was under 15%. However, the standard deviations indicate wide variation across observations in numbers of other gender peers with whom children sat and interacted.

Table 6-4: Mean percentage of children within seated and active groups who were own gender and other gender peers

	Mean % of seated group (SD) (N=2652)	Mean % of active group (SD) (N=1625)
Own gender peers	83.3% (29.6%)	85.9% (33.7%)
Other gender peers	14.8% (27.0%)	14.1% (33.8%)

6.2.2.3 Own and other class members

Children mainly sat and actively interacted with children from their own classes as opposed to those from other Year 5 classes or other year groups (see Table 6-5). Mean percentages indicate that, on average, approximately two thirds of seated group peers were from the children's own class ($M = 68.0\%$, $SD = 35.8\%$) as were three quarters of active interaction group members ($M=74.1\%$, $SD=42.2\%$) although there was wide variation in this. In fact, in over 70% of active group observations children interacted only with others from their own class.

Table 6-5: How many of seated group were from own Year 5 Class, other Year 5 class and other year groups?

	Mean % of seated group (SD) N=2652 except*	Mean % of active group (SD) N = 1628 except**
From own Year 5 Class (N = 2652)	68.0% (35.8%)	74.1% (42.2%)
From other Year 5 Class	32.4% (33.1%)	30.4% (44.2%)
From other Year Groups (N = 2652)	6.1% (17.7%)	2.9% (22.9%)

* (Excludes School 1 where only one Year 5 class: N= 1962)
 ** (Excludes School 1 where only one Y5 class: N = 1215)

It was most likely that any other mealtime companions came from the parallel Year 5 class (although this did not apply in one of the schools which only had one class per year group). On average, a third of children in seated groups ($M = 32.4\%$, $SD = 33.1\%$) and almost a third of active groups ($M = 30.4\%$, $SD = 44.2\%$) came from the other Year 5 class. Only a small mean percentage of children in seated groups ($M=6.1\%$, $SD=17.7\%$) and an even smaller percentage in active groups ($M=2.9\%$, $SD=22.9\%$) came from other year groups.

6.2.2.4 Adult presence

Adults were present (interacting with the child, their group or standing nearby) in 5.5% of observations.

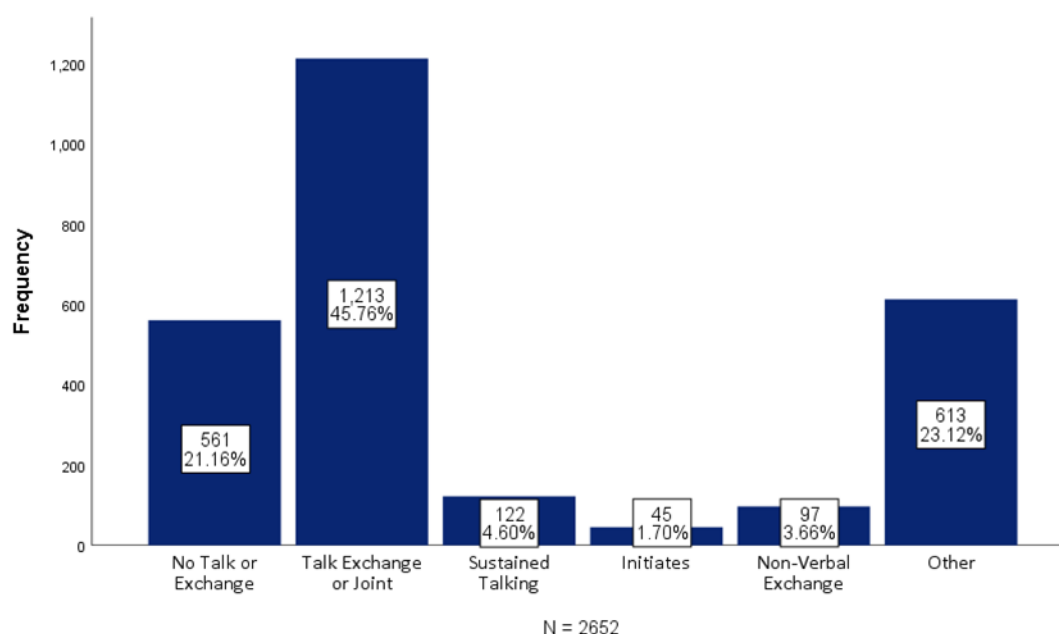
6.2.3 How did children interact? Characteristics of interaction and types of activity

6.2.3.1 Features of talk and interaction

Addressing this question involved quantitative analyses of two aspects of mealtime interactions: extent of engagement/interaction (examined above) and prevalence of different types of interaction. As explained in Chapter 5, these ‘types’ of interaction included characteristics of interaction (e.g. taking part in to-and-fro conversation versus talking in a sustained manner) and also types of activity (e.g. *Food exchange/sharing* or *Game playing*).

Observation-level analysis (see Figure 6-8) showed that, overall, children were most frequently (45.8% of cases) involved in exchange of talk (flowing or intermittent) or joint talking or singing i.e. they were engaged in exchanges where there was a degree of coordination and mutuality.

Figure 6-8: Mode of mealtime interaction



Note: For reliability (see 5.3.4) *Non-verbal exchange* was included in the *Other* category where most cases were of *Sustained* or *Intermittent listening*. Given that these interactions may not have been reliably distinguished, the validity of the Non-Verbal categories as separate should be regarded with caution. It is shown separately here to illustrate variety of interactions with a degree of mutuality and those which were more one sided.

In a smaller but still substantial number of observations (29.42% in total), interactions could be described as more one-sided. These included cases where the child was listening in a sustained or intermittent manner (23.12%), talking in a sustained way (4.6%) or initiating an interaction to which they received no response (1.7%). In just over one fifth of observations, *No talk or exchange* was observed between children.

Categories had also been included in the observation system to capture other characteristics of children’s interactions. As noted in Chapter 5, these occurred infrequently during reliability testing so that their reliabilities could not be judged. I report them here (see Table 6-6) with that reservation in mind. Of note were the fact that children were either smiling or laughing in just over 14% of observations and facially, vocally or physically animated (e.g. *Dramatic face or voice*; moving about or gesturing – *Physical animation*) in almost 14 %. There were also a few cases (25) of *Rough and tumble play* which might be considered surprising in a seated lunchroom. There were a small number of observations of *Positive affect* (56) but extremely few (5) of *Negative affect* or *Aggression*.

Table 6-6: Additional characteristics of interaction (N = 2651)

Facial/vocal expression	Frequency (%)	Other characteristics	Frequency (%)
Laughing	95 (3.6%)	Physical animation	268 (10.1%)
Smiling	279 (10.5%)	Positive affect/intimacy	56 (2.1%)
Upset or Crying	0 (0%)	R&T or playfight	25 (0.9%)
Frown/scowl/whine	1 (0.04%)	Negative affect/aggression	5 (0.2%)
Dramatic/animated voice	101 (3.8%)		

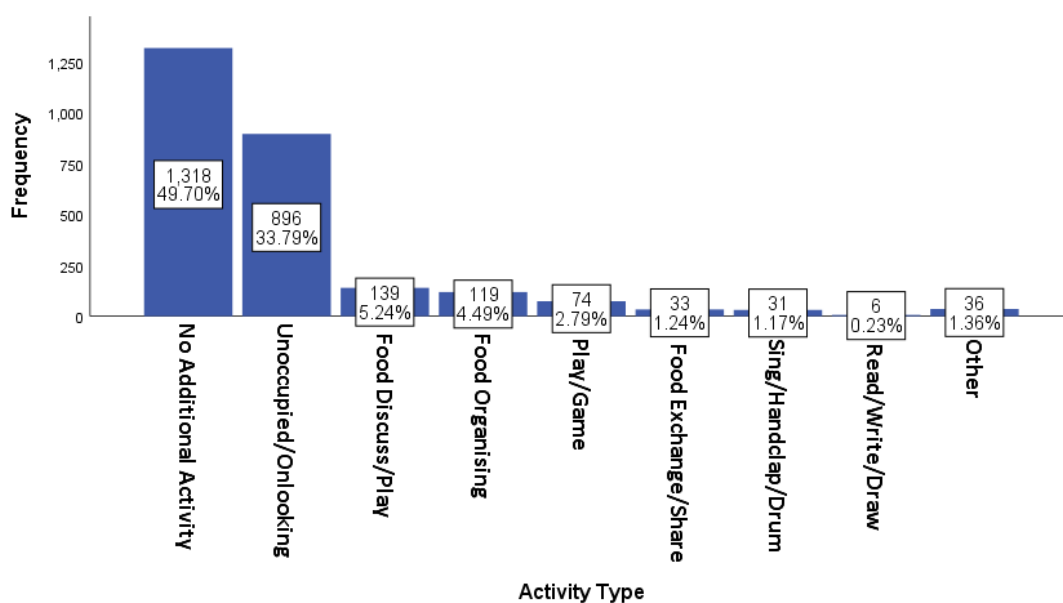
6.2.3.2 Types of activity

Observable activity taking place in addition to talk was also recorded (see Table 6-7). This gave some insight into the fact that a range of things other than ‘plain talk’ were incorporated into children’s mealtime social experience. Specific activities were recorded in 16.5% of cases. This included activity that revolved around food such as

food talk (when it was audible) or play with food (5.2% of observations); organising of food such as unpacking a packed lunch (4.5%) or exchange or sharing of food (1.2%). Other activities were not associated with food but might be facilitated by sitting around a table such as playing or *Game playing* (2.8%); *Singing, handclapping or drumming*; and, very rarely, *Reading/writing or drawing* (1.4%). It is also interesting to note that although use of phones or other electronic equipment was included as a category, it was not observed at all in this study.

In half of observations (49.7%) no additional activities took place in addition to talk and in another third (33.8%) children were simply onlooking other children interacting or they were ‘unoccupied’. (Note that they could be eating while ‘unoccupied’ and were doing so in 757 of 896 (84%) of *Unoccupied/onlooking* cases.)

Table 6-7: Type of activity (N = 2652)



6.2.3.3 Gender differences in content of interaction

Percentages were compared for boys and girls for each of these observation-level analyses of features of interaction and interaction activities except where frequencies were very low. I found no notable differences.

6.2.3.4 Qualitative notes on content of interaction

As explained in Chapter 5, I made qualitative notes for 722 (27%) of observations where additional details were visible or audible (e.g. topics of talk or type of game being played). This provided some insight into more specific content of children's mealtime interactions and activities. I summarise findings from those notes here but a full list of content from these observations is included in Appendix 9. I cannot use this data to give accurate indications of the overall prevalence of different interaction content. For a large majority of observations, content could not be identified and some forms of interaction were more identifiable than others (e.g. Discussion about items of food was more often obvious because of handling of food than other topics of conversation). Nevertheless, I made event counts of the number of times a particular interaction type or activity occurred. (That is to say, for example, I counted how many games took place rather than observations they spanned; a game such as 'Wink Murder' may span a number of observations of a target child). This provided an indication of repetition of some interaction types/activities. I also noted whether repeated interaction types took place in more than one school (indicated by +) or all schools (indicated by *).

Some interactions seemed primarily relational (relationship-relevant) and others were less obviously so. In addition, some interactions seemed very clearly connected to the mealtime context (food and lunchroom furniture or systems) whereas others did not. Interactions or activities which had a clearly relational dimension and were also mealtime specific included *Seat saving or organising* (23*) and *Food sharing, exchange or taking* (22*). The former involved children in designating seats for favoured peers or calling/beckoning to others to come and sit at a table. It also involved refusing seating to others or indicating that they would have to take a different seat. In this way, children drew lines of inclusion and exclusion. *Food sharing, exchange or taking* indicated that certain foods (often crisps or packed lunch treats) had value and that there was a social dimension to this. In some cases, children simply gifted food to selected others: a gesture that seemed affiliative. There were also more complex negotiations around exchanging food including when one child begged food from another but was refused or when someone 'stole' from

another, usually in a jokey way. I observed both *Seat saving* and *Food sharing/exchange* in all schools.

In several schools, I also observed strategies children used to ensure they could leave with their companions. One method was to *Rush eating* (10+) to catch up with others who were getting ready to leave; another was to *Wait for companions to finish* (8+) before leaving together. Sometimes this coordinated departure occurred between two individuals; sometimes it involved coordination of whole groups. Either way, it appeared to express a bond between those children or an individual's concern that they should not be left behind by others.

Some interactions seemed to have a clear relational dimension but were less connected to the mealtime setting. They included *Reminiscing* (4+) about joint past experiences, *Planning* (2) later joint activity, or *Organising a group* (6+) e.g. to play a game. As such, these activities seemed to express and reinforce a sense of togetherness. On several occasions, I heard children *Gossiping* (4+) about others suggesting potential implications for the status of those who were being critically judged or even for those who were doing the judging.

Other interaction content and activities were less obviously relational although they, nevertheless, provided varied material for children to engage with one another which therefore also seemed likely to express and feed into their peer relationships. Again, some of this was closely related to the mealtime context. For example, in all schools, children *Discussed food items of interest* (49*), particularly those which had been brought in packed lunches. Food and food equipment were also used in all schools as a focus of playing (13*) games (e.g. scoring goals by throwing a carton into the food waste bin) or imaginary play (e.g. playing 'Master Chef' by rearranging or mixing food on plates).

There were specific topics of non-mealtime related conversation which I recorded once (e.g. Pets, Use of gender-neutral pronouns by transgender children, Computer games) or a few times at most (Football, Halloween, Hairstyles). Activities were more readily identifiable. They included *Playing of traditional games* (15*) such as clapping games, 'Rock, Paper Scissors' and 'Wink Murder' and, also, engagement in *Current*

crazes (16*) such as 'Dabbing', 'Pokemon-go', 'Bottle flipping' and playing with 'Fidget Spinners'. Both types of game playing occurred in all schools but particular crazes varied notably between schools as crazes came in and out of fashion. Among other activities were several instances of '*Playfighting*' (usually a low-key seated version) and '*Pretend play*' (including a comic episode where some boys made mock marriage proposals to some girls) and 'Singing Happy Birthday'.

The quality of interactions may also have created a relational impact. It is therefore worth noting, that I observed many instances of humorous interaction and behaviour. These took place in all schools and, again, were related (37*) and unrelated to food (46*). Examples of food-related *Humorous interaction* included mimicking someone's eating and creating a comic effect by licking up spilt water or licking a plate. Example of less food-related *Humorous interactions* included making comical faces, voices or gestures and creating comic effect by making 'rabbit ears' behind someone else's head without them knowing; recounting something funny that they had done; and making armpit 'farts'.

6.3 Extent of association between mealtime interactions and peer relationships

In this section, I address RQ2 which asked:

To what extent are children's informal mealtime interactions with peers associated with their friendships and relationships with the wider peer group?

This involved using regression analyses to test mealtime interaction variables as predictors of best friendship, friendship quality and peer acceptance variables.

6.3.1 Overview of outcome and predictor variables

The two outcome variables were *Percentage social engagement* (%SE) which encompassed mealtime engagement of any kind with peers (active or just attending to others' interactions); and *Percentage talk exchange* (%TX) which only included active to-and-fro or joint coordinated interaction between peers and, as such, was a

subset of %SE. In line with this, bivariate correlations (see Table 6-8) indicated that they were strongly correlated ($r(103)=.632, p=.000$) but not very strongly.

The analyses which tested associations between peer relationships and mealtime interactions was exploratory although guided by some tentative predictions. I had predicted that both friendships (*Number of best friendships* and friendship quality (FQ) variables) and relationships with the wider peer group (*Peer acceptance* and *Peer rejection*) would predict the mealtime interaction variables.

6.3.2 Friendship variables as predictors of mealtime interactions/engagement

In terms of friendships, the prediction only held true to a very limited extent. Bivariate correlations (see Table 6-8) showed that the only notable correlation for '*Number of best friendships*' was with %SE ($r(94)=.305, p=.002$): a child with more best friends may be somewhat more attentive and/or interactive during mealtimes. In the multiple regression analyses, once wider peer group relationship variables (*Peer acceptance* and *Peer rejection* – Table 6-9 and Table 6-10) or FQ variables (Table 6-11 and Table 6-12) were included as predictors, *Number of best friendships* was not a notable predictor for either of the outcome variables.

Table 6-8: Means, standard deviations and bivariate correlations for school mealtime interaction variables and peer relationship variables

	Mean (SD)	1	2	3	4	5	6	7	8	9	10	11	12
1. % Social Engagement^a	45.70 (16.78)	1											
2. %Talk exchange/joint^a	73.26 (16.41)	.632***	1										
3. Peer acceptance^a	0.54 (0.23)	.433***	.334***	1									
4. Peer rejection^a	0.60 (0.27)	-.197*	-.148	-.742***	1								
5. No. of Reciprocated Best Friendships^c	1.72 (1.17)	.305*	.114	.456**	-.379*	1							
6. Mean FQ Help/ Aid^b	3.53 (0.79)	.362***	.371***	.368***	-.322**	.320**	1						
7. Mean FQ Help/ Protection from victimisation^b	3.75 (0.86)	.330**	.329***	.397***	-.364***	.151*	.813***	1					
8. Mean FQ Security/ Transcending Problems^b	3.96 (0.75)	.343***	.266**	.225*	-.238*	.187*	.601***	.569***	1				
9. Mean FQ Closeness - Affective Bond^b	4.05 (0.72)	.251*	.305**	.302**	-.280**	.310*	.708***	.664***	.552***	1			
10. Mean FQ Closeness - Affective Appraisal^b	3.50 (0.87)	.311**	.299**	.282**	-.274**	.218*	.734***	.698***	.467***	.650***	1		
11. Mean FQ Conflict^b	1.99 (0.68)	-.032	.057	.064	-.023	-.029	-.225*	-.171	-.493***	-.149	-.147	1	
12. Mean FQ Brag Boast^b	1.94 (0.9)	.084	.124	.024	.074	-.057	-.155	-.095	-.210*	-.148	-.108	.534***	1

Note: ^aN=105; ^bN= 101; ^cN=96; ^dN=92. Peer acceptance and rejection are scored from 0 to 2; FQ is scored from 1 to 5.

Significance: *p < .05, **p < .01 and ***p < .001

Table 6-9: Multiple regression analysis of *Number of best friendships* and peer acceptance variables as predictors of *Percentage social engagement (%SE)*

	Variables	B	SE B	β	T	p	Partial Correlations
Model 1a	Constant	65.49	2.85		22.96	.000	
	Number of best friendships**	4.27	1.38	0.35	3.11	.002	.305
Adjusted R ² = .08, F(1, 94) = 9.66, p = .002;							
Model 2a	Constant	40.57	9.22		4.40	.000	
	Number of best friendships	1.61	1.41	0.12	1.14	.256	.118
	Peer Acceptance***	40.67	9.39	0.59	4.33	.000	.412
	Peer rejection	12.75	8.12	0.21	1.57	.120	.162
Adjusted R ² = .25, F(3, 92) = 11.29, p = .000;							
R ² Change = 0.18, F(2, 92) = 11.06, p = .000							

Significant predictors: *p < .05, **p < .01 and ***p < .001

Table 6-10: Multiple regression analysis of *Number of best friendships* and peer acceptance variables as predictors of *Percentage talk exchange (%TX)*

	Variables	B	SE B	β	T	p	Partial Correlations
Model 1b	Constant	42.31	3.03		13.96	.000	
	Number of best friendships	1.63	1.46	0.11	1.12	.267	.114
Adjusted R ² = .00, F(1, 94) = 1.25, p = .267;							
Model 2b	Constant	22.23	10.07		2.21	.030	
	Number of best friendships	-.97	1.54	-0.07	-0.63	.529	-.066
	Peer acceptance**	36.11	10.26	0.51	3.52	.001	.345
	Peer rejection	8.57	8.87	0.14	0.97	.336	.100
Adjusted R ² = .13, F(3, 92) = 5.83, p = .001;							
R ² Change = 0.15, F(2, 92) = 8.03, p = .001							

Significant predictors: *p < .05, **p < .01 and ***p < .001

Table 6-11: Multiple regression analysis of *Number of best friendships* and friendship quality (FQ) variables as predictors of *Percentage social engagement (%SE)*

	Variables	B	SE B	β	T	p	Partial Correlations
	Constant	67.85	2.96		22.92	.000	
Model 3a	Number of best friendships*	3.37	1.40	0.25	2.41	.018	0.25
							Adjusted R ² = .05, F(1, 90) = 5.81, p = .018; R ² Change = .06, F(1, 90) = 5.81, p = .018
	Constant	30.40	12.78		2.38	.020	
	Number of best friendships	2.22	1.44	0.16	1.54	.127	0.17
	FQ Help – Aid	5.99	4.04	0.29	1.48	.142	0.16
	FQ Help – Protection	1.31	3.24	0.07	0.40	.687	0.04
Model 4a	FQ Security – Transcending Problems*	5.85	2.91	0.28	2.01	.048	0.22
	FQ Closeness – Affective Bond	-5.04	3.33	-0.23	-1.51	.134	-0.16
	FQ Closeness Affective Appraisal	0.65	2.72	0.04	0.24	.812	0.03
	FQ Conflict	3.16	2.96	0.14	1.07	.290	0.12
	FQ Brag/Boast	1.06	1.99	0.06	0.54	.549	0.06
							Adjusted R ² = .15, F(8, 83) = 3.04, p = .005; R ² Change = .17, F(7, 83) = 2.54, p = .02

Significant predictors: *p < .05, **p < .01 and ***p < .001

Table 6-12: Multiple regression analysis of *Number of best friendships* and friendship quality (FQ) variables as predictors of *Percentage talk exchange (%TX)*

	Variables	B	SE B	β	t	p	Partial Correlations
Model 3b	Constant	43.20	3.23		13.39	.000	
	Number of best friendships	1.32	1.53	0.91	0.86	.390	.091
Adjusted R ² = .00, F(1, 90) = 0.745, p = .390; R ² Change = .008, F(1,90) = 0.745, p = .390							
Model 4b	Constant	-7.56	13.74		-0.55	.584	
	Number of best friendships	-0.78	1.16	-0.05	-0.50	.618	-.06
	FQ Help – Aid*	8.91	4.34	0.40	2.05	.043	.22
	FQ Help – Protection	-0.81	3.48	-0.04	-0.23	.817	-.03
	FQ Security – Transcending Problems	3.74	3.13	0.17	1.20	.235	0.13
	FQ Closeness – Affective Bond	0.48	3.58	0.02	0.14	.893	0.02
	FQ Closeness Affective Appraisal	-0.66	2.92	-0.03	-0.03	.822	-.03
	FQ Conflict	4.48	3.18	0.19	0.19	.163	0.15
	FQ Brag/Boast	1.38	2.14	0.08	0.08	.520	0.07
Adjusted R ² = .13, F(8, 83) = 2.68, p = .011; R ² Change = .20, F(7, 83) = 2.94, p = .008							

Significant predictors: *p < .05, **p < .01 and ***p < .001

There was, however, some evidence that friendship quality was associated with mealtime social experience. In the bivariate correlations (see Table 6-8), all the positive FQ variables (*Help*, *Security*, *Closeness* subscales) were correlated with the mealtime interaction/engagement variables %TX ($r(99)=.266$, $p=.007$ to $r(99)=.371$, $p=.000$) and %SE ($r(99)=.251$, $p=.011$ to $r(99)=.362$, $p=.000$). *Help/aid* was the FQ variable correlated most strongly with both mealtime variables but more strongly with %TX.

In the multiple regression analyses, some dimensions of friendship quality retained some predictive power although this varied according to the outcome variable. Only *Security/transcending problems* (perception that a friendship can withstand difficult

relationship events such as arguments) was a significant predictor of %SE when all the friendship variables were included in a model (Model 4a - Table 6-11) and this remained so once *Peer acceptance* and *Peer rejection* variables were included ($\beta = 0.29$, $p = .028$) (Model 5a - Table 6-13). For %TX, only *Help/aid* (perception that a friend will offer help when needed) was a significant predictor when all friendship variables were included (Model 4b - Table 6-12). However, while still the strongest of the FQ predictors it became a very weak non-significant predictor of %TX in the final model when peer acceptance was included (Model 5b - Table 6-14). It, therefore, seemed that friendships - number or quality - were little associated with %TX.

Table 6-13: Multiple regression analysis of friendship quality (FQ) and peer acceptance variables as predictors of Percentage social engagement (%SE)

	Variables	B	SE B	β	T	p	Partial Correlations
Model 5a	Constant	7.00	15.03		0.47	.643	
	FQ Help – Aid	2.78	3.50	0.14	0.79	.429	0.08
	FQ Help – Protection	-0.79	2.93	-0.04	-0.27	.787	-0.03
	FQ Security – Transcending Problems*	6.04	2.72	0.29	2.23	.028	0.23
	FQ Closeness – Affective Bond	-2.54	2.92	-0.12	-0.87	.387	-0.09
	FQ Closeness Affective Appraisal	2.43	2.46	0.13	0.99	.327	0.10
	FQ Conflict	1.40	2.77	0.06	0.51	.615	0.05
	FQ Brag/Boast	1.57	1.84	0.09	0.85	.396	0.09
	Peer acceptance***	37.71	9.22	0.55	4.09	.000	0.39
	Peer rejection*	19.94	8.06	0.33	2.48	.015	0.25
Adjusted R ² = .25, F(9, 91) = 4.78, p = .000							

Significant predictors: * $p < .05$, ** $p < .01$ and *** $p < .001$

Table 6-14: Multiple regression analysis of friendship quality (FQ) and peer acceptance variables as predictors of *Percentage talk exchange* (%TX)

	Variables	B	SE B	β	t	p	Partial Correlations
	Constant	-22.86	16.87		-1.14	.179	
	FQ Help – Aid	4.81	3.93	0.23	1.23	.223	0.13
	FQ Help – Protection	-0.49	3.29	-0.03	-0.15	.881	-0.02
	FQ Security – Transcending Problems	3.64	3.05	0.16	1.19	.236	0.12
Model 5b	FQ Closeness – Affective Bond	0.88	3.27	0.04	0.27	.790	0.03
	FQ Closeness Affective Appraisal	0.90	2.76	0.05	0.33	.744	0.03
	FQ Conflict	2.96	3.11	0.12	0.95	.344	0.09
	FQ Brag/Boast	2.08	2.07	0.11	1.00	.318	0.11
	Peer acceptance*	25.22	10.35	0.35	2.44	.017	0.25
	Peer rejection	15.31	9.05	0.24	1.69	.094	0.18

Adjusted R² = .17, F(9, 91) = 3.21, p = .002

Significant predictors: *p < .05, **p < .01 and ***p < .001

6.3.3 Wider peer group relationship variables as predictors of mealtime interactions/engagement

The analyses indicated that relationships with the wider Year 5 peer group were more strongly associated with mealtime social engagement and interaction. In the bivariate correlations (Table 6-8), whole year group '*Liking by peers*' was correlated with both %SE and %TX. This was weaker for the latter ($r(103) = .334, p = .000$) than the former ($r(103) = .433, p = .000$). This correlation with %SE, indicating that high peer acceptance goes along with high mealtime social engagement, was the strongest found between the peer relationship and mealtime outcome variables. Peer rejection, however, was only weakly (negatively) correlated with both outcome variables.

The final regression models which included both friendship quality and peer acceptance variables (Model 5a - Table 6-13 and Model 5b - Table 6-14) indicated that, overall, whole year group acceptance was a more important predictor than friendship of mealtime engagement and interaction with peers. For %SE, when controlling for friendship quality, both *Peer acceptance* ($\beta = 0.55, p = .000$) and *Peer rejection* ($\beta = 0.33, p = .015$) became main predictors. This model accounted for 25% of variance in %SE. For %TX, when controlling for friendship quality, only *Peer acceptance* ($\beta = 0.35, p = .017$) was a significant predictor. This final model accounted for 17% of variance in %TX. The findings therefore indicated a stronger association between peer relationships and engagement of any kind with peers (attending or actively interacting) as represented by %SE, than between peer relationships and active interaction with a degree of mutuality and coordination as represented by %TX.

I examined model fit and assumptions of the regression analyses. Findings included that 1. There were no standardised residuals greater than 3 for either Model 5a with %SE as the outcome variable or for Model 5b with %TX as the outcome variable 2. Results of K-S tests showed that distribution of the standardised residuals did not deviate significantly from normality for either model: for Model 5a with %SE as outcome variable, $D(101) = 0.06, p = .200$ and for Model 5b with %TX as outcome variable, $D(101) = 0.08, p = .154$.

6.3.3.1 Gender differences

I repeated each of the analyses above including gender as a variable. I had predicted that higher FQ variables, *Security/transcending problems*, *Help/aid* and *Help/protection* (but not the *Closeness* variables) might be predictive of girls' mealtime social engagement but that they might be associated with lower engagement for boys. Although for the whole sample FQ *Security/transcending problems* was the best friendship quality predictor of %SE and FQ *Help/aid* was the best friendship quality predictor of %TX, I found no gender differences. Gender made no significant difference to any of the models including the final ones 5a where %SE

was the outcome variable ($\beta = -0.12$, $p = .191$) and 5b where %TX was the outcome variable ($\beta = -0.11$, $p = .288$).

6.4 Extent of association between mealtime interactions and peer relationships with adjustment to school

In this section, I address RQ4 which asked:

To what extent are children's informal mealtime interactions and peer relationships associated with their individual adjustment to school?

I planned to address this question using regression analyses to test mealtime interaction variables and peer relationship variables as predictors of each of the school liking measures identified using factor analysis described in Chapter 5.

6.4.1 Overview of outcome and predictor variables

In this part of the child-level analysis, I first planned to examine associations of mealtime interaction/engagement variables (*Percentage social engagement* - %SE and *Percentage talk exchange* - %TX) with the three school liking outcome measures (*General school liking*; *Informal social time liking* (during play and meals) and *Mealtime liking*).

Next, I planned to test associations between those peer relationship measures which had already been found to be connected to mealtime interaction/engagement and the school liking outcome measures. The peer relationship measures included were, therefore, *Peer acceptance*, *Peer rejection* and *FQ Security/transcending problems*.

6.4.2 Descriptive statistics and bivariate correlations between variables

Descriptive statistics and bivariate correlations for these variables are shown in Table 6-15. All three school liking variables were negatively skewed showing an overall tendency for these children to like rather than not like school. Mean liking for informal aspects of school (*Informal Social Time* and *Mealtime Liking*) were a little higher than General School Liking. However, all correlations between the predictor

and school liking variables were weak so that I decided not to proceed with the regression analyses.

Table 6-15: Means, standard deviations and bivariate correlations for school liking variables, mealtime interaction/engagement and peer relationship variables.

	Mean (SD)	1	2	3
1. General School Liking^a	3.89 (0.81)	1		
2. Informal Social Time Liking^c	4.55 (0.65)	.248*	1	
3. Mealtime Liking^b	4.03 (0.74)	.272**	.450 ^e	1
Mealtime variables				
5. %Social Engagement (PSE)^a	45.70 (16.78)	-.017	.107	.038
4. %Talk exchange/joint (PTX)^a	73.26 (16.41)	-.114	-.011	.006
Peer relationship variables				
7. Peer acceptance^a	0.54 (0.23)	.122	.135	.169
8. Peer rejection^a	0.60 (0.27)	-.178	-.037	-.043
12. Mean FQ Security - Transcending Problems^f	3.96 (0.75)	.168	.117 ^h	-.040 ^g

Notes: ^aN=105; ^bN= 104; ^cN=103; ^dN=103; ^eN=102; ^fN=101; ^gN=100; ^hN=99; ⁱN=96; ^jN=95; ^kN = 94; School liking is scored from 1 to 5; Peer acceptance and rejection are scored from 0 to 2; FQ is scored from 1 to 5.

Significance: *p < .05, **p < .01 and ***p < .001

Chapter 7 Phase 2 Methods

7.1 Chapter overview

In this chapter, I describe methods of data collection and analysis used in the mainly qualitative observational Phase 2 of my study. These methods were designed to provide close-up examination of the mealtime interactions of children with their eating companions. It addressed my research questions 1 and 3:

- 1. What is the nature of children's informal peer interaction during school mealtimes (who children interacted with; topics of talk and activities; social processes embedded in talk/activities)?**
- 3. How are children's informal mealtime interactions with peers associated with their friendships and relationships with the wider peer group?**

As shown in Table 7-1, I used two types of data for Phase 2 of the study. They formed the basis for three areas of analysis described in the sections below. First, I analysed peer relationship data from Phase 1 to identify children's mealtime groups (those with whom a child regularly spent their mealtimes) and the relationships (*Best friendships* and *Peer Acceptance*) within them. Second, for Phase 2 data collection, I made videos of mealtime interactions of selected children and analysed them to examine relationship-relevant (relational) social processes. Sociograms representing relationships between children in mealtime groups enabled me to analyse Phase 2 observations of interactions/social processes in relation to specific relationships between those who were interacting. Third, analysis of interactions/social processes necessarily involved documenting the activities and conversation topics which comprised the interactions i.e. the mealtime '*activities or routines, artifacts, values, and concerns*' which formed part of peer culture with which relational interactions were intertwined (Corsaro, 2018). Findings from each of these areas of analysis are presented separately in Subchapters 8a, 8b and 8c.

Table 7-1: Overview of Phase 2 methods used to study children’s school mealtime interactions and peer relationships

PHASE 2: An in-depth mainly qualitative study of mealtime conversations of selected Year 5 children	
<p>Method: Social network analysis of Phase 1 observations used to identify mealtime peer groups and relationships within them</p> <p>Purpose: To represent mealtime peer groups and relationships with specific relevance to the mealtime context. This informed analysis of interactions in video recordings by identifying the relationships between those who were interacting.</p>	<p>Method: Video recordings (Pairs recorded during 4 eating times); analysis using a Grounded Theory approach</p> <p>Purpose:</p> <ol style="list-style-type: none"> 3. To provide detailed insight into social processes which may connect everyday school mealtime interactions to children’s peer relationships 4. To examine the content (activities, topics of conversation) of the interactions

Note that names of children have been changed throughout this chapter and subsequent analysis presented in Chapter 8.

7.2 Social network analysis for identification of mealtime groups and relevant peer relationships

I identified school mealtime groups (i.e. those who regularly sat together to eat) and peer relationships within them for the 16 focus children who were video recorded during their mealtimes (see 7.3 below).

7.2.1 Identification of members of eating time groups

The first stage of the process was to use social network analysis to identify members of mealtime groups. The process was based on aggregation of Phase 1 systematic observation data i.e. repeated identification of those seated together during Phase 1 observations.

In order to aggregate the individual observations of seated groups, I used SCM 4.0 software (Leung, 1994) to obtain a co-occurrence matrix showing the total number of times that each individual was observed seated with each other individual in Year 5. A child was counted as being with another not only when they were the target

of an observation but also every time they appeared in a group when another child was the target. This meant that all available data about seating companions was used but also that individuals had been observed a varying number of times. In order to make the co-occurrence figures comparable, the counts of observations when an individual was with a given other child were converted into percentages of the total number of times that they had been observed.

Arriving at the final co-occurrence matrix was further complicated by the fact that each pair of children, A and B had usually been observed a different number of times (for example, 30 times for A and 40 times for B). This meant that even though they had been observed together 20 times this represented a different percentage of the total number of times that each had been observed (67% of observations for A and 50% for B). In order to be able to create a single co-occurrence index that was comparable across pairs of children, the mean of these two percentages (59%) was used in a final percentage-based co-occurrence matrix as a best measure of the proportion of time A and B had sat together.

Groups were identified using this final co-occurrence matrix. On the basis of logical rules developed by Baines & Blatchford (2009), children were allocated to a central group core (seated with others in the core for 50%+ of observations – see Figure 7-1), a more loosely connected cluster (37.5%+ of observations), a peripheral group member (25%+ of observations) or were not allocated to the group. A picture could thus be developed which distinguished between more established and more peripheral seating companions. The rules state that

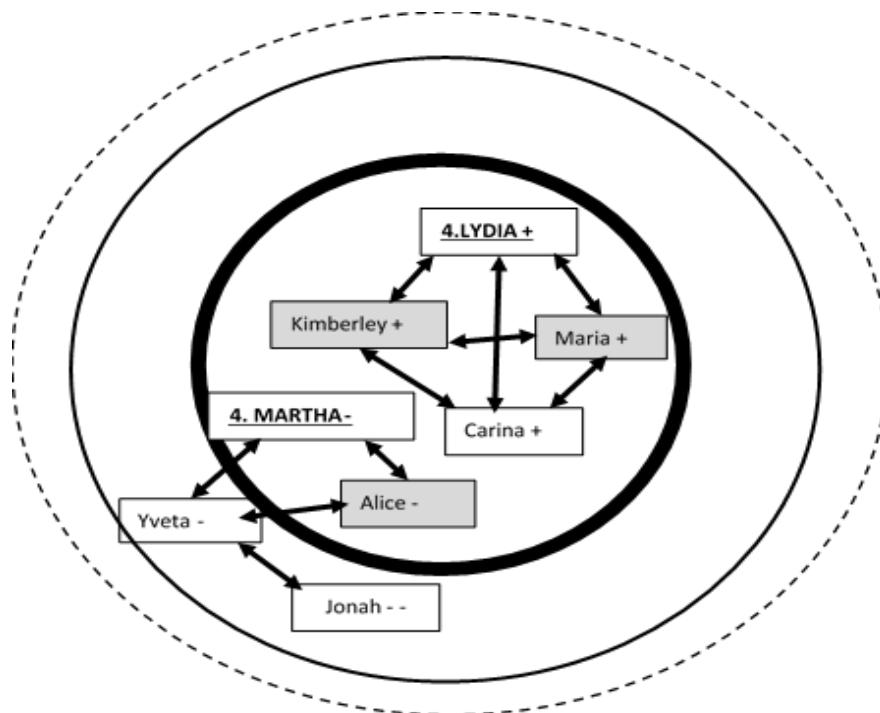
‘A core, cluster or group can have just two members. For additional members to be included they must either be: linked to at least two members in the network at that level, or be linked to one established member at that level AND be linked to another at the next level down (i.e. cluster, group or approaching group level which related to 17% of the combined observations). If a pupil is connected to another established member of a network but not to any others within the network (in terms of the above criteria), then this would result in a new network being identified with the established member shared between the two networks.’ pp.749-751

This was one amongst a number of possible methods for determining group membership and different methods potentially lead to varying results (Gest et al., 2007). However, it had the advantage of being relatively simple and transparent unlike some more complicated computerised algorithms which have been criticised for being opaque (e.g. Neal & Neal, 2013). Also, through the requirement for each individual to be linked to at least two others in the group, it went some way to addressing the problem of transitivity (e.g. see Hanneman & Riddle, 2014) whereby individuals A and C are linked to one another by virtue of sharing a connection with B but no direct connection with one another. In addition, I followed the advice of Baines and Blatchford (2009) to cross reference findings with field notes about group composition. In my study, this included a weekly plan made of all Year 5 mealtime seating. This was particularly helpful in addressing doubts around the boundary between one group and another which were linked by the common membership of one or two children but were not judged from qualitative observations over time to be part of the same group. Group membership at the core, cluster and group level was represented in sociograms for each group – see Figure 7-1 for an example.






7.2.2 Relationships between group members

Once membership of an eating group had been identified, I used Phase 1 peer relationship data (see Chapter 5) to establish some additional information about the group-specific relationships and added this to the sociograms as shown in the example in Figure 7-1. Notation for representing this information is shown in the key to the sociogram. Reciprocated *Best friendships* were included. An indication of *Peer acceptance within the group* was also included by showing whether each child's liking by those peers was up to one or more than one standard deviation above or below the mean level of *Peer acceptance* for that particular group. (This was based only on aggregated liking by the peer group, not disliking). This meant children were classified as being *Accepted, Highly accepted, Poorly accepted* or *Very Poorly accepted*.

Figure 7-1: Example sociogram of one mealtime group



Key to sociogram

Symbol	Meaning
	Members at core level for sitting together (50%+ criterion)
	Members at cluster level for sitting together (37.5%+ criterion)
	Group members for sitting together (25%+ criterion)
<u>4. MARTHA</u>	Bold underlined are focus children and same number indicates pair who were videoed together (Martha is Girls Pair 4 focus child with Lydia)
	Shading indicates all those in School 2 who came from the non-focus Year 5 class (In School 1 there was only one class)
	<i>Best friendship</i>
+/-	<i>Peer acceptance</i> within one Standard Deviation of the mean <i>Peer acceptance</i> for that group (+ = <i>Accepted</i> ; - = <i>Poorly accepted</i>)
++/--	<i>Peer acceptance</i> greater than one Standard Deviation from the mean <i>Peer Acceptance</i> for that group (++ = <i>Highly accepted</i> ; -- = <i>Very poorly accepted</i>)

During my analysis of video footage of mealtime interactions (see below), I used these sociograms of mealtime groups and of peer relationships within them to act as

representations of the mealtime social context for those who were interacting. As such, they informed my understanding of the relational implications of those interactions.

7.3 Video recordings of mealtime interactions

My data collection in Phase 2 involved making videos of children during mealtimes. As discussed in Chapter 4, Jewitt (2012) has noted that video provides a *'fine grained multimodal'* and *'durable'* (p.6) record allowing open-ended access to details of social interaction which can *'support an exploratory research design and extended data discovery'* (p.8). As such, it provided an ideal method for capturing children's everyday interactions in that context and for analysing them in detail. Jewitt also noted that video is necessarily partial in who and what it captures. For this part of the study my intention was, therefore, to use the video to enable in-depth analysis of a selection of interactions between some individuals and so to begin to paint a picture of their social experience during school mealtimes. The data was not intended to provide a complete account with claims to be representative across many individuals or times.

7.3.1 Phase 2 sample and consent

I carried out Phase 2 of the study with selected Year 5 children from the Phase 1 observation focus classes in two schools. I explained my intention to make videos of mealtimes and the reasons for this to relevant classes at the end of sessions when children completed Phase 1 questionnaires. Potential focus children were identified during Phase 1 data collection. They were selected on the basis of being a pair of children who I had observed sitting together consistently as part of the same mealtime group; with each pair being part of a different group (although for Boys Pair 1 and Boys Pair 2 there was an overlap in group membership because almost all the Year 5 boys mixed to some extent); and with an equal number being pairs of boys and pairs of girls. These pairings had several benefits. First, they would provide insight into social experience within a number of different groups. Second, simultaneous recordings of two children within a group – both wearing microphones – enabled

better understanding of various aspects of group interaction than if a single child had been recorded. Third, I assumed that children would feel more comfortable if taking part with a familiar other.

Choice of focus children was discussed with the class teacher before any approach was made to parents or children so that, for example, individuals who might be very stressed by the experience were not asked. One child's participation was vetoed for that reason. A letter of explanation and requesting consent (including assurances that the videos themselves would not be shared publicly) was sent to the child's parents (see Appendix 10). When consent was received, children were approached and asked to participate. Two pairs of boys and two of girls in each school (i.e. 16 children in total) were recruited in this way. All parents and children I approached agreed that they could take part. In addition, a letter was sent to parents of all Year 5 children (see Appendix 11) explaining that videoing would be taking place, that their child might also be recorded if sitting with a focus child and that they could opt-out their child from this part of the study if they wished. No parents did so.

7.3.2 Recording procedures

Recordings followed procedures developed during my pilot recordings made in one school. One pair of children were recorded at a time. Prior to entering the lunchroom, the pair were each fitted with a small lavalier microphone and a transmitter and these were collected after they had left so that, in line with my non-participant observer approach (see Chapter 4), I could avoid contact with them during mealtimes. A small video camera (Sony Handycam) and audio receiver were set up on a tripod and set to record before the children entered the room. All the devices were battery-powered so no wires restricted their placement or caused an obstruction. The camera was directed at a specific table, pre-arranged with the children and staff. Beyond the fact that focus children had agreed to sit at the 'filming table', their companions were free to join them or not and to organise themselves around the table as they wanted. The camera – although visible - was positioned out of the way to be as unobtrusive as possible and to avoid filming children other than those who had chosen to sit at the table with the focus children. Children were only filmed when seated at the table and

filming was stopped when both focus children had finally left. I sat in the vicinity of the camera during filming but it was clear that I was not watching through the camera or otherwise paying attention to children at the filming table so placing some limit on the extent to which they felt observed.

7.3.3 Timing and number of recordings

Recordings were undertaken of each pair of focus children during four consecutive eating times. The first day's video was not used for analysis (although children did not know this) to allow them to become acclimatised to some degree to the recording situation. Recordings were then carried out on 3 more consecutive days. This amounted to 12 recordings for analysis in each school (3 for each pair of focus children and 4 pairs per school): 24 recordings in total. This number of recordings was judged to provide an appropriate balance between sufficient data to allow exploration of varied interactions across a number of situations and ensuring relatively short-term intrusion into participants' lives.

Recordings for one pair of boys had to be discarded. There was a combined impact on interactions and recordings of one boy's absence, poor sound quality and the school unexpectedly playing videos in the dining room which led children to stop talking to one another. One day's recordings were not used in another school as a teacher came and spoke to children at the recording table for most of their mealtime. In that case, two episodes from the following day were selected for analysis (see below). This meant 20 recordings were finally used. (They ranged from 7 minutes 46 seconds in length to 28 minutes 15seconds - mean length 17 minutes 28 seconds). Even with this reduction in the number of recordings, given the density of detail within interactions, this provided a substantial body of material for analysis.

7.3.4 Impact of the recording process and validity of the footage

I recognise that the visibility of the recording equipment and the children's awareness of the research project made it impossible to avoid impact on the social situation. I would also claim that the videos provided an authentic albeit partial representation of the children's everyday mealtime interactions. Goodwin (2006) video recorded a

group of girls during grades 4 (9-10 years) to 6 in a U.S. elementary school. She says that her camera was always visible but '*Generally, participants did not orient their talk to the camera. However, when taboo subjects would be brought up, the girls would [sometimes] be sensitive about the process of videotaping and the presence of the microphone.... At other points, however, [they] were unconcerned about more private aspects of their lives*' (pp.25-26). Similarly, even though my recordings were made over a much shorter time period than Goodwin's, the children mainly continued without attention to the camera and there was a sense of flow in many of their interactions which gave a feeling of 'business as usual'.

Other indications of validity of the footage are based on comparisons between the video recorded interactions and those made during my less obtrusive Phase 1 systematic observations where children were not aware whether they were being observed at any particular moment. Firstly, the topics and activities which comprised interaction episodes were not different from those observed in Phase 1 (see Chapter 8c). Secondly, children sitting together in each video were, with the exception of one child, members of the mealtime groups identified prior to videoing from Phase 1 observations as represented in the sociograms described above.

7.4 Data analysis: drawing on Grounded Theory methods to examine social processes

My analysis of the video recordings drew heavily on Charmaz's (2006) constructivist Grounded Theory methods. (See Appendix 12 for an outline of the elements of a Grounded Theory analysis as set out by Charmaz.) The realist standpoint I set out for this study in 4.3, differs from Charmaz's worldview in the extent to which I also see my analysis as a relatively reliable representation of the actual (e.g. what children said and did during their mealtime interactions); and of the real peer relationships represented in the sociograms described above; and of a real connection between them. Nevertheless, my standpoint aligns with her epistemology to the extent that I recognise my analysis of this video data is to some degree constructed and so, in part, partial, provisional and resting on my particular perspective and interpretation of

events. And, for several reasons, her analytic methods were well suited to addressing the aims of this part of my research.

In particular, Charmaz's approach is designed for the study of social processes within qualitative data (including observations) which are a main focus of this work. The approach is closely focused on identifying actions in people's accounts or, as in this case, in their observed behaviour with the aim of establishing '*unfolding temporal sequences*' which are '*linked in a process and lead to change*' (p.10). As such, to refer back to my theoretical model (see 2.4), they provide methods which can illuminate the microtime forms of mealtime interaction between individuals which constitute proximal processes which Bronfenbrenner has posited as main drivers of development:

...human development takes place through processes of progressively more complex reciprocal interaction between an active, evolving biopsychological organism [i.e. the person] and the persons, objects and symbols in its immediate external environment. (Bronfenbrenner & Morris, 1998, p.996)

Specific processes of interest in this study are the '*interactive sequences*' (p.112, Levinger and Levinger, 1986) which both influence and are influenced by the relationship between individuals as well as the individuals themselves. As described by Bronfenbrenner and Morris, through practice, sequences may become '*progressively more complex*' over time as children learn about engaging in such relationships and their social functioning becomes more sophisticated.

Segmentation and categorisation of data using my Grounded Theory approach bears similarities to those used by others undertaking a different type of analysis, for example, thematic analysis. But, as noted by Braun & Clarke (2006), a simple focus on themes does not allow examination of the '*fine-grained functionality of talk*' (p.97). By contrast, as described in the next sections, my focus on actions in initial close coding of small segments of data provided material for an interpretive analysis which identified components of a given social process with relevance to peer relationships. In common with psychological discourse analysis (e.g. Wiggins, 2017), then, my approach treated talk as social action. Unlike such discourse analysis, it did

not involve a focus on technical features of language which are used to achieve social actions (e.g. pronoun use, disclaimers, metaphor) or examination of linguistic forms which would form part of an even finer grained Conversation Analysis (e.g. Have, 2007).

Rather, Grounded Theory methods allowed analysis of a relatively large body of data and supported analytic comparison of individuals during different interactions and of different individuals within or across interactions. They also encouraged a high level of openness to the data which is summed up by Glaser's (1978) directive to begin with the question '*What is happening here?*' (cited in Charmaz, 2006, p.20). Since I had a pre-existing focus on social processes connected to peer relationships, my analysis was less open than this. Nevertheless, I set out to examine the video data with an openness to the relational processes which I might find rather than, for example, looking for examples already cited in the peer-relations literature (e.g. gossip) or school mealtime literature (e.g. inclusion/exclusion via seat saving) both noted in Chapter 3.

In the next sections, I detail the stages of my analysis of the video data. As shown by reference to the stages of Charmaz's Grounded Theory set out in Appendix 12, I was not carrying out a full Grounded Theory analysis but using some of the key stages/methods to examine some of the relational processes embedded in the children's mealtime interactions. As described in the next sections, rich description of processes was achieved especially through use of her approach to line-by-line coding, memo-writing and making of constant comparisons between different interactions (see 7.4.1). I also followed her approach by building on this grounded analysis to establish some higher level integrative categories (see 7.4.3). However, because of time limitations, this was the extent of my analysis. I did not engage in '*Theoretical Sampling*' (see Appendix 12, point 4) by returning to the field, or even to additional episodes in existing video footage, to check and revise developing categories and theoretical ideas. As such, I did not aim to achieve '*Theoretical Saturation*' (see also Appendix 12, point 4) or to produce a full Grounded Theory. Nevertheless, my partial use of Charmaz's methods allowed me to make a rich initial

description of a complex set of mealtime social processes in which the children engaged.

7.4.1 First watching, identification and selection of episodes for close analysis

Videos for each pair of focus children were imported into NVivo 11. This allowed transcriptions to be made which were linked to sections of video of any length. During a first watching of the videos, short, rough 'episodes' of interaction were identified based on a coherent piece of action or interaction such as a game or talk about a particular subject. Examples of one episode from one recording of Natalie and Mimi (Girls Pair 1) are shown in Table 7-2. (See Appendix 13 for examples of complete logs of episodes for two pairs of focus children.)

I used some re-orientation of attention or action on the part of one or both focus children to identify the beginning and end of an episode. As such, they varied in length. Some episodes were quite clearly bounded. For example, Episode 2 in Table 7-2 began as the group collectively enter into playing the clapping game in earnest and ends when they are called to get food and six of the group suddenly leave. Others were less clear-cut. For example, Mimi is eating from the end of Episode 5 into Episode 6 and the division between episodes is made on the basis of Natalie's brief departure to get a spoon. And in Episode 6, the playing of Chinese Whispers flows seamlessly into other topics of conversation which, as such, are included in the same episode. Nevertheless, the logs created a preliminary picture of varying forms of interaction across a whole eating time and so formed a basis for selecting episodes for detailed analysis as described next.

Table 7-2: Episode log of day 2 video recording of Girls Pair 1, Natalie and Mimi (18 mins, 10s in total)

Girls 1, Day 2		
Epis- ode	Time	Content
1	2min 2s	Seating: 5 girls arrive together to sit then Eliza. Mimi whispering to Eliza. Natalie leans over and joins in. Intermittent Counting Game being played around the group - interspersed with ongoing seating (Alfie arrives and Mimi suggesting where he should sit; then Evie arrives and talk about whether she can sit at remaining seat where someone has left their coat). Natalie interested in Nisa's lunchbag.
2	3 mins 4s	Hand clapping game with all joining in – Natalie organising and Mimi helping at various points. All playing. Interwoven with M and N interest in Nisa's packed lunch.
3	2 mins	Mimi, Natalie and 4 others called for lunch and leave to get food. Go to get lunch. Arrive back one at a time .
4	5 mins 13s	Re-seated - food and general chat over meal – Natalie's talk about Afra being one teacher's best friend, then about eating peas and being sick; Mimi pinching her nose because of macaroni cheese, listening to Nisa, Annie and Natalie talk.
5	1 min 38s	Natalie and Mimi eating and trying Nisa's challenge to read what it says on her top - 'Guys, the first person to read this gets a point in my [Nisa's] brain'. Mimi wins. Mimi eating. Natalie listens to Alfie's talk about someone.
6	4 mins 53s	Natalie getting spoon; Mimi eating and listening to others singing Natalie asserting her talk then joining in game of 'Chinese Whispers' with Mimi and others; talk about chocolate fountain and marshmallows. Leaving.

Three or four such episodes were selected for each pair of children which added up to a little over 1 hour 50 minutes of video footage. They ranged from 1 minute 45 seconds to 8 minutes 51 seconds in length and their mean length was 4 minutes 35 seconds. This formed a substantial body of material for detailed transcription and analysis. Selection of episodes from all those available was aimed at providing material to give insights into varied social processes embedded in the mealtime interactions of the focus children which could stem from or feed into a range of peer relationship types represented in the sociograms. It was not aimed at providing a representative or exhaustive set of interactions for a given child or group of children which would not anyway have been possible given the number of lunchtimes

observed and the focus on detail in the analysis. As such, I could have selected different episodes which may have given insight into different relational processes.

My selections were guided by the Grounded Theory notion of the '*constant comparative method*' (Charmaz, 2006, p.54) whereby understanding of processes develops through consideration of similarities and differences between different pieces of data, codes and categories. In line with this, I selected episodes which, at this first sight, involved both different or similar content. To illustrate this, Table 7.3 shows reasons for selecting episodes for analysis from all those identified from first viewing of recordings of Girls Pair 1 and Boys Pair 1; Appendix 13 provides a full list of episodes from which these selections were made for these two pairs of children; and Appendix 14 lists episodes selected for analysis and reasons for selecting them for all pairs of children. This method of selection succeeded in providing a rich body of data for comparison of varied relational processes and of elements within a given process. For example, I identified different forms of teasing/targeting (*Affiliative teasing; Targeting meets resistance; Targeting to denigrate or expel* – see 8b.3.4) which were variously positive or negative in character and which each had different elements which determined this character.

Table 7-3: Selected episodes - with reasons - for transcription and analysis for Girls 1 and Boys 1

Time	Content	Reason for selection
Girls 1		
1. 3 mins 4s	GAME HANDCLAPPING Hand clapping game with all joining in – Natalie organising and Mimi helping at various points. All playing. Interwoven with M and N interest in Nisa’s packed lunch.	Initial choice – Game
2. 3min 40s	SEATING CONVERSATION Natalie attending to conversations. Mimi (and sometimes Natalie) engaged in recurrent discussion/argument re seating with Erin and others. Afra singing. All interspersed with Natalie singing and hand clapping with Eliza. Natalie goes to get lunch. Mimi continues conversation about who sits where. Natalie returns.	Initial choice – Seating – inclusion and exclusion
3. 1 min 35s	TALK BETWEEN MIMI AND NATALIE ABOUT MIMI’S BROTHER’S PARTY Natalie and Mimi talk about M’s brother's birthday and friends; then eating and onlooking.	Initial choice – Sharing information about personal lives
4. 4 mins 17s	TALK ABOUT SEATING AND GAME (CHINESE WHISPERS) All discuss their ideal eating group and Natalie and Karl tell Asha about Erin leaving upset. Mimi talks to Annie and Nisa about Nisa’s and her own playground injuries, interwoven with all playing ‘Chinese Whispers’	Includes conversation about seating – similarity to 2 but with dramatic leaving Another game – similar to 1. But a different game so also different
Boys 1		
5. 7 mins 10s	GAME (NEVER HAVE I EVER) Gabe suggests playing 'Never have I ever' to Freddy. Lee returns having lost packed lunch and then leaves. Joey and Kieron return with lunches. Gabe resumes instructions for 'Never have I ever...' and they play the game. Lee returns with lunch. Kieron loses to Joey and goes to get a spoon.	Another game – so similarity to 1 and 4. But a different game and one where ‘targeting is allowed’ so also different.
6. 2mins 25s	POKEMON TALK Gabe arrives. Lee putting arm round Gabe. Gabe begins a Pokemon conversation with Kieron - 'I haven't got any Snorlaxes'. Others join in. Lee explains to Gabe how he chased off Vik. Pokemon conversation resumes.	New subject – Talk about a current craze.
7. 3 mins 11s	FOOD PREFERENCES AND GOING TO FREDDY’S HOUSE Food conversations – Vegetarian, Pescatarian, Omnivore or Carnivore? – especially between Kieron, Gabe and Lee. Talk about when Freddy's dog Bella stole Eddie's yogurt. Kieron sparks ‘competition’ for, ‘How many times I've been to Freddy's house’.	New subjects – Talk reflects current issues of concern; also shared past experience with and competition to affiliate

7.4.2 Transcription, line-by-line coding, writing memos and constant comparisons through the lens of the mealtime groups

Stages of analysis of the video recordings are explained in this and the following section. The sociograms which represented the mealtime groups and peer relationships (*Best friendships* and *Peer acceptance* by the group) were integral to understanding at each stage of the analysis. The sociogram which was relevant to the focus child for whom interactions were being analysed was on display for ready reference throughout transcription, coding, writing memos and making comparisons. It provided insight into the relationships between group members as both contexts for and outcomes of ongoing interactions. For example, sustained teasing by Monique and others of Chloe suggested duplicity on the part of Monique given that they were best friends. Affection shown by Lee for Gabe who was not a best friend suggested that he was making affiliative moves to strengthen ties between them.

Selected episodes for a pair of children were transcribed. Transcriptions were made of one 10 second clip of the episode at a time and, in NVivo, were tied to that specific piece of video action allowing cross-checking between transcription and video both during transcription and subsequent analysis. As a result, reference could easily be made back to non-verbal aspects of interactions in the primary video data (e.g. gesture, animation, facial expression, gaze, animation, voice, position) which could not be fully captured in transcription (Dicks et al., 2006) so supporting interpretation during subsequent analysis. A separate version of each transcribed episode was made for each one of a pair of focus children in order to describe their separate although overlapping interactions.

My style of transcription reflected the fact that I was aiming to preserve meaning in turns of interaction as I understood it (Lapadat, 2000 and see Chapter 3 regarding the possibility of understanding) rather than carry out a linguistic analysis. I recorded spoken words verbatim, used dots for pauses and underlining for emphasis. However, I used descriptive language for other aspects of interaction with the aim of providing a vivid portrayal to support my subsequent analysis and also to communicate the scene to the reader. For instance, in Extract Example 7-1, I say that

Afra 'pumps the air with her hand' (line 6); and I describe Monique as speaking 'slowly and loudly' (final line). This is equivalent to ethnographers' use of descriptive language in their field notes such as when Eder et al. (1995) use the phrase 'Laura said in a kidding way...' (p.53) or when Delamont (2002) says, 'Bernard has an attack of coughing' (p.61).

Extract Example 7-1 : 'Put your hands up if....' - Girls 2, Day 4: Chloe and Monique sitting with Hope, Karl, Afra and Mimi

-
- 1.Chloe begins in a funny baby voice - 'Put your hand up if someone's coming to yours for
 - 2.Cwismas!' Chloe puts her hand right up. Karl puts his hand up half way.
 - 3.Chloe continues '....because my 19 year old bwother is.'
 - 4.Monique puts her hand straight up and speaks loudly over Chloe, 'I'm going to my house.'
 - 5.Afra pushes her chair back, puts her hand right up and interrupts M saying, 'I'm going to
 - 6.Butlins, so beat that' - she pumps the air with her hand.
 - 7.She is interrupted as Chloe looks back at Afra, leaning towards her and says, 'Well I'm seeing
 - 8.my brother...'
 - 9.Monique repeats loudly, 'I'm going...'
 - 10.Chloe continues, '...for the first time. So beat that.' She pumps the air with her hand and
 - 11.jumps about in her seat.
 - 12.Monique thumps the table and says loudly, 'Huh-hermmm!'
 - 13.Hope and Karl say 'Sssshhh' – Karl has his fingers to his lips.
 - 14.There is a pause and she says slowly and loudly, looking at Karl, 'I'm - going - to - my -
 15. house!'
-

The next stage of the analysis was to carry out initial close coding of the transcript. Charmaz (2006) refers to initial 'line-by-line' coding of the transcripts as a means of

'...naming each line of your written data (Glaser 1978). Coding every line may seem like an arbitrary exercise because not every line contains a complete sentence and not every sentence may appear to be important. Nevertheless it can be an enormously useful tool. Ideas will occur to you that had escaped your attention when reading for a general thematic analysis.' p.50

In this analysis I did not stick strictly to the line-by-line rule although I stayed close to it (indeed Charmaz suggests an alternative incident-to-incident depending on data and research purpose). Here I coded each meaningful interaction from the perspective of the focus child which could span several lines of the transcript. The point was to scrutinise the data carefully – interpreting and coding these component parts of interactions. Of the coding process as a whole (Charmaz, 2006) says,

'Coding is the pivotal link between collecting data and developing an emergent theory to explain these data. Through coding you define what is happening in the data and begin to grapple with what it means.' p.46

Important features of this rapid line-by-line coding method are that gerunds (-ing words) are used as the basis of short codes. In this way the method emphasises what actors are doing and so '*preserves action*' (p.49) and social process. Examples from my coding in 7.1 with respect to Chloe were

- Using comic tone or intonation (Line 1)
- Using play format to activate interaction (Line 1)
- Drawing attention to self (Line 1 and 2)
- Sharing personal information (Line 3)
- Being ignored (Line 4)
- Interrupting (Line 7)
- Returning to subject/repeating (Line 7 to 8)

In line with Charmaz's description, this close reading and initial analysis of the eating time transcripts served to spark ideas about processes taking place not in the single line or turn alone but in a cohesive set of interactions between the focus children and others. By '*cohesive set of interactions*', I mean that interaction turns taken by different children focused on the same topic or activity, such as in Extract Example 7-1. Here the set of interactions are focused on what they are doing at Christmas and so the whole set were used to consider relationship-relevant processes at work. This was supported by the line-by-line coding which encouraged a focus on the smaller moves by actors which may comprise the process as a whole.

Ideas sparked by the coding were documented and developed in 'memos' which were used to explore developing categories and the processes involved in them. For example, I wrote about Extract Example 7-1 in several memos: one was labelled *Making things happen (your own way)* whereby I suggested that repetition (such as that used by Chloe) could be used to place oneself at the centre of the action and that this could sometimes lead into a competitive 'duelling' between children (here

between best friends Chloe and Monique) to make themselves heard over the other. This work contributed to the development of category definitions facilitated by using '*constant comparative methods*' (Charmaz, 2009, p.54). Within memos, both similar and different moments of action were compared to help explain characteristics of developing categories of mealtime interaction. For example, repeated competitive assertion of their own personal information and lack of attention to the other by best friends Chloe and Monique was contrasted with and, as a result, highlighted the close attention and responsiveness which characterised some other interactions between them and between some other children (which I labelled *Mutual responsiveness*).

Raw data from the transcripts was frequently used as the basis for this memo-writing to maintain a close link between developing analytical ideas and the data itself. As Charmaz says,

'Including verbatim material from different sources permits you to make precise comparisons right in the memo. These comparisons enable you to define patterns in the empirical world. Thus memo-writing moves your work beyond individual cases.' p.82

I also regularly considered these varied types of interaction with reference to the relationships of the children involved by keeping the relevant sociograms in front of me. In the example above, the observations led me to think about how the wider group context may feed into the more competitive behaviour between these best friends.

A further point about memo-writing is that the memo should be treated as '*partial, preliminary and provisional*' and '*imminently correctable*' (p.84). The intention is that provisional ideas within memos can be checked against subsequent data and extended or revised. As such ideas generated from consideration of a given episode were revisited and developed as described next.

7.4.3 Ongoing development of a framework of focused/theoretical codes and their connection to peer relationships

Charmaz (2006) describes several distinct stages of more advanced coding which should follow on from initial coding and category development and which are increasingly abstract and theoretical. In my analysis, line-by-line coding of transcripts for the first four focus children (two pairs) and the development of definitions of provisional categories via '*constant comparison*' and memo-writing were the basis of for development of a preliminary framework of categories.

The framework provided a starting point for guiding a second iteration of line-by-line coding, comparison and memo-writing for data from the next two pairs of children. 'Guiding' is a key concept here since the Grounded Theory approach emphasises the need to '*avoid imposing a forced framework*' onto the data (see below for discussion of strategies to avoid this). Indeed, my approach to sampling of episodes - which contrasted with or were similar to those that had already been analysed - meant that each iteration presented me with new forms of interaction or conversational content relevant to the children's peer relationships. Therefore, categories from the first framework were elaborated, modified, merged or divided and new categories were added. A third iteration of the process was undertaken with data from the final three pairs of children. An example from this stage involved me adding an observation of Vinny to the '*Making things happen (my way)*' memo. Here he also used repetition but to draw attention to something of interest (he was looking through a window made by his hands) in a way that seemed much more based on his fascination rather than on gaining attention from an audience in a driven, competitive way. A second detailed framework of categories was developed after this round of analysis.

Alongside this cyclical analysis, I developed overarching classifications which served to organise and re-organise the detailed peer interaction categories several times. The final version is presented in Chapter 8b. (See there, for example, the description of categories '*Moving towards*' or '*Moving away*', '*Symmetrical*' or '*Asymmetrical*'). These are Grounded Theory theoretical codes which are used to specify

'... possible relationships between categories you have developed in your focused coding' and as such are integrative; they lend form to the focused codes you have collected' and 'may help tell an analytic story that has coherence. Hence these codes not only conceptualise how your substantive codes are related but also move your analytic story in a theoretical direction.' (Charmaz, 2006, p.63)

7.4.4 Mealtime topics of talk and activities as part of the analysis

As mentioned at the start of the chapter, identifying mealtime topics of talk and activities also formed an important part of my analysis since relational processes were intertwined with this content; and also because they contributed to understanding of the ways in which interactions were or were not determined by the mealtime context. The analytic process highlighted content as well as social process. This started with initial line-by-line coding, where examples of my codes were *Playing clapping game*, *Suggesting change to activity*, *Announcing out of school activity with SOME*. These kinds of codes and the content they related to, fed into memos such as *Responding to and creating peer culture* and *Sharing information*. These formed the basis for the final classifications relating to mealtime interaction content described in Chapter 8c.

7.4.5 Trustworthiness or validity of the analysis

As discussed in my methodology (Chapter 4), approaches to validity need to be relevant to the particular type of evidence by helping to consider ways in which evidence supports a particular claim and ways that it does not ('a validity threat'). Several relevant approaches were adopted for ensuring validity of this qualitative interpretive analysis.

Firstly, Grounded Theory methods in themselves have been developed to maintain a strong link between data and analysis which guards against the possibility of interpreting data to suit pre-conceived ideas. This purpose was served by techniques adopted here such as line-by-line coding, including raw data within memo-writing and revisiting this data as analysis proceeded to check whether they were well-represented by developing categories (7.4.2 and 7.4.3). As Charmaz (2006) says, 'It

helps to interrogate yourself about whether these theoretical codes interpret all the data' (p.66). Part of the analytic process within memo-writing was to consider and reconsider category descriptions. Critically assessing initial definitions in relation to new examples (checking back to earlier transcripts and sometimes to video footage) provided a rigorous means of developing or modifying understanding of a 'single' social process. For instance, different examples of *'Teasing/Targeting'* showed variation in the phenomenon which included differences in how nakedly aggressive it was (and in fact sometimes it was quite affectionate) and whether the target of the teasing gave way, for example by leaving the group. Consequently, four sub-types of targeting were included in my final analysis and I identified connections to different types of peer relationships. In drafts and in the final analysis of relational processes presented in Chapter 8b, I have included numerous extracts from transcripts to make explicit the mealtime interactions which formed the basis of such categories. As well as enabling my ongoing reflective process and discussion about categories with my supervisor, I intended this to make the analysis transparent to the reader of the final version.

At the same time, I was aware that I was not adopting a pure Grounded Theory approach which would mean avoiding formulation of any theory prior to analysis. I had not used literature to develop a comprehensive framework of the kind of interactions which might occur during mealtimes. However, I had already undertaken a literature review which identified interactions examined in previous school mealtime research or in peer relations research. I had also already developed a rationale for the connection between mealtime interactions and children's peer relationships and had carried out a quantitative analysis with all this in mind. As a result, during my analysis I tried to keep in mind the possibility that for some children and for some interactions there might not be a strong interaction-relationship connection. I also tried to question whether my interpretation of events was coloured by my own impressions of children developed from time spent in the classroom as well as the lunchroom. This was helped by my use of the sociograms representing mealtime groups and children's relationships within them which provided a useful check on my own impressionistic views, for example, of who was likeable.

Finally, in relation to findings in Chapter 8c about children's mealtime topics of talk and activities, findings from the earlier Phase 1 data provided a basis for considering whether this interaction content was similar or different once the Phase 2 videoing was taking place.

Chapter 8a Phase 2 findings: Children's mealtime groups and peer relationships within them.

8a.1 Chapter overview and precis of findings

Chapter 8a is the first of four sub-chapters in which I present Phase 2 findings. In Chapter 8a, I present sociograms derived from social network analysis which involved aggregating observations of children who sat together. The sociograms represent the mealtime groups which were the immediate social context for the focus children's interactions. They also add to findings from Phase 1 systematic observations about the mealtime-specific peer group and so help to address my RQ1:

What is the nature (the relevant peer group) of children's informal peer interaction during school mealtimes?

Since they underpinned my understanding of the children's mealtime peer relationships during subsequent analysis of mealtime interactions (see Chapter 8b), the sociograms are also a first stage in addressing RQ3 which asked:

How are children's informal mealtime interactions with peers associated with their friendships and relationships with the wider peer group?

I first explain the sociograms as representations of the groups. I then describe features of the groups which are apparent from examining the sociograms.

Precis of findings about mealtime groups:

Group size and membership:

- Mealtime groups varied in size from 8 to 17 at the whole group level and from 2 to 10 at the core membership level. They were almost exclusively single gender. At a whole group level, there was a mixture of children from parallel Year 5 classes. At the core level they varied from no mixing to an equal mix of children from both classes.

Peer relationships within groups:






- Nearly all *Best friendship* pairs were within the same mealtime peer group and most of them (75%) were within the core level of those who sat together most frequently. In addition, most *Best friendship* pairs were part of a larger network of friendships involving a number of children. These could be small, enclosed friendship clusters or a looser chain of friendships which could span separate group cores. Groups also included 14 children (21%) without best friendships including a minority of those at the core level.
- Across all groups, 40 children (74%) at the core level were *Accepted* or *Highly accepted*.
- Overall, 16 children (70%) at the more peripheral cluster and group levels were poorly or *Very poorly accepted* but this varied across groups.
- The majority but not all children (70%) with a *Best friendship* were *Accepted* or *Highly accepted* by their group. Six of 14 children without a *Best friendship* were also *Accepted* or *Highly accepted*.

8a.2 Overview and explanation of the mealtime group information represented in the sociograms

As described in Chapter 7, social network analysis was used to identify the membership of mealtime groups and the extent to which they were established, regular members (i.e. Core members who sat together frequently to eat) or more peripheral (i.e. Cluster or Group members who sat together less frequently). Peer relationships within these groups were also identified from Phase 1 measures of *Best friendship* and *Peer acceptance*.

Each of these elements of the mealtime groups were represented in the sociograms shown in Figure 8a-1 to Figure 8a-6 below. The symbols used for each of these elements are shown in Table 8a-1.

Table 8a-1: Key to information contained in school mealtime sociograms for focus children

Symbol	Meaning
	Members at core level for sitting together (50%+ criterion)
	Members at cluster level for sitting together (37.5%+ criterion)
	Group members for sitting together (25%+ criterion)
<u>4. MARTHA</u> <u>4. LYDIA</u>	Bold underlined are focus children and same number indicates pair who were videoed together (Martha is Girls Pair 4 focus child with Lydia)
	Shading indicates all those in School 2 who came from the non-focus Year 5 class (In School 1 there was only one class)
	<i>Best friendship</i>
+/-	<i>Peer acceptance</i> within one Standard Deviation of the mean <i>Peer acceptance</i> for that group (+ = <i>Accepted</i> ; - = <i>Poorly accepted</i>)
++/--	<i>Peer acceptance</i> greater than one Standard Deviations from the mean <i>Peer Acceptance</i> for that group (++ = <i>Highly accepted</i> ; -- = <i>Very poorly accepted</i>)

In order to clarify how these symbols are used in the sociograms, I explain them next with reference to the first sociogram (Figure 8a-1).

Figure 8a-1: Sociogram showing relationships between children in Boys Pair 1/School 1 (Gabe and Kieron) and Boys Pair 2 (Eddie and Lee) mealtime group

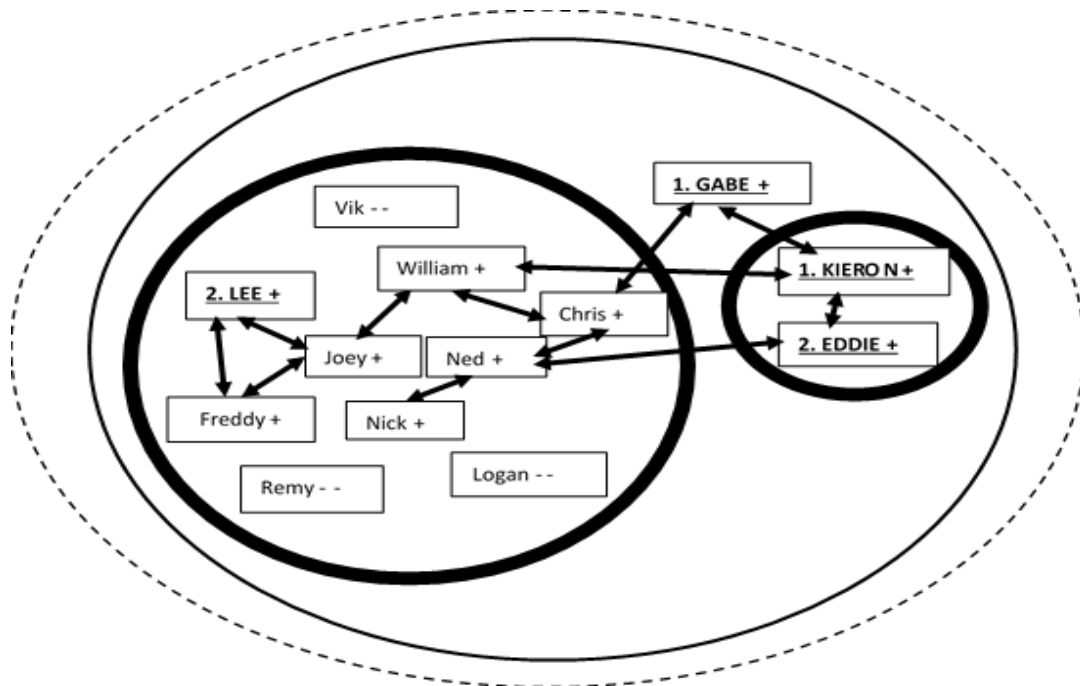


Figure 8a-1 shows the extended mealtime group which includes 13 boys and both the first and second pair of boys who were the focus of videos (Boys Pair 1, Gabe and Kieron – each labelled 1; and Boys Pair 2, Eddie and Lee – each labelled 2). All boys are part of the single Year 5 focus class in this school (so no name boxes are shaded to indicate they come from a parallel Year 5 class).

There are two core groups of boys within the wider group (indicated by the thick circles) indicating boys who frequently sat together (50%+ level) with other boys in the same core. One core is much larger than the other (ten boys versus only two). Only Gabe is not part of the core but he is a cluster level group member (within the thinner circle) sitting with others somewhat less of the time (37.5%+ level). Indeed, the boys in both cores also sat with those in the other core – and with Gabe - for that proportion of the time. In this group, no child is a more peripheral group level member (sitting to eat with others at the 25%+ level – which would have been shown by a child being only within the dotted line).

In terms of the peer relationships within the mealtime group, all but three boys were interconnected via a network of reciprocated *Best friendships* which, in fact, spanned the group cores and also included Gabe who sat with them less frequently. Within this network, the boys were all *Accepted* (within one standard deviation above the group mean for *Peer acceptance* by other group members shown by a +). None were *Highly accepted* (i.e. *Peer acceptance* beyond one standard deviation above the mean which would be shown by a ++). As *Accepted* children with best friendships – and with *Accepted* best friends - they may nevertheless be regarded as having a strong overall social position in the group. By stark contrast, the three remaining boys, Remy, Vik and Logan, had no best friends and were *Very poorly accepted* (*Peer acceptance* beyond one standard deviation below the mean as shown by a - -). Their social positions within the group may then be regarded as weak. In spite of this, they frequently sat with the other seven boys who formed part of the same mealtime core.

The remaining sociograms are shown next.

Figure 8a-2: Sociogram showing relationships between children in Girls Pair 1 /School 1 (Natalie and Mimi) mealtime group (Note: Girls Pair 2, Monique and Chloe, are on the periphery of this group as well as in group shown in Figure 8a-3)

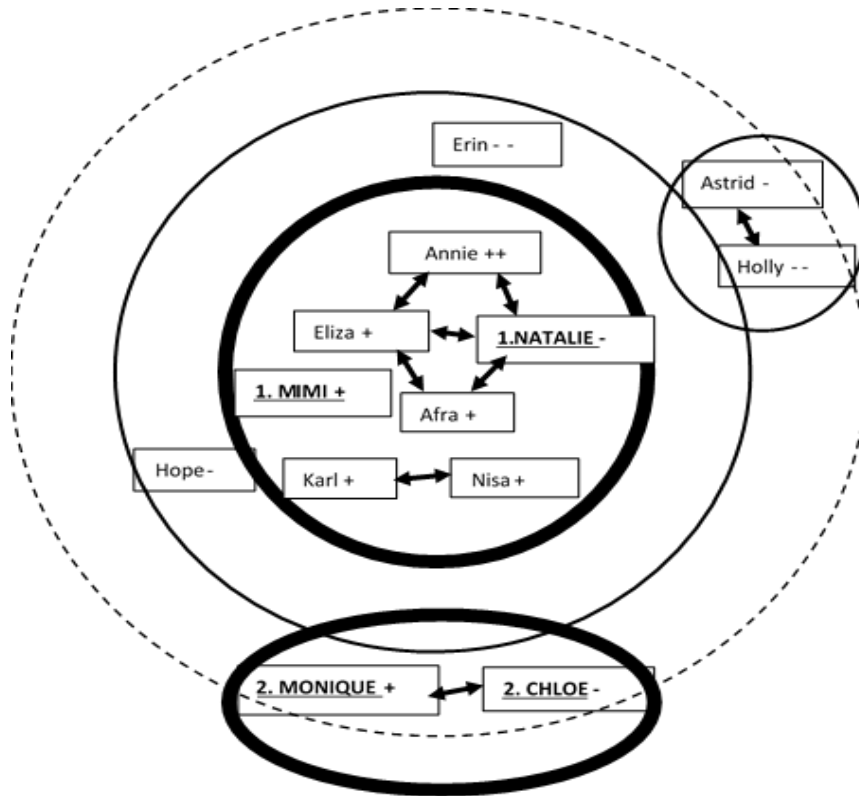


Figure 8a-3: Sociogram showing relationships between children in Girls Pair 2/School 1 (Monique and Chloe) mealtime group (Note: Girls Pair 2 are also part of Girls Pair 1 group – Figure 8a-2)

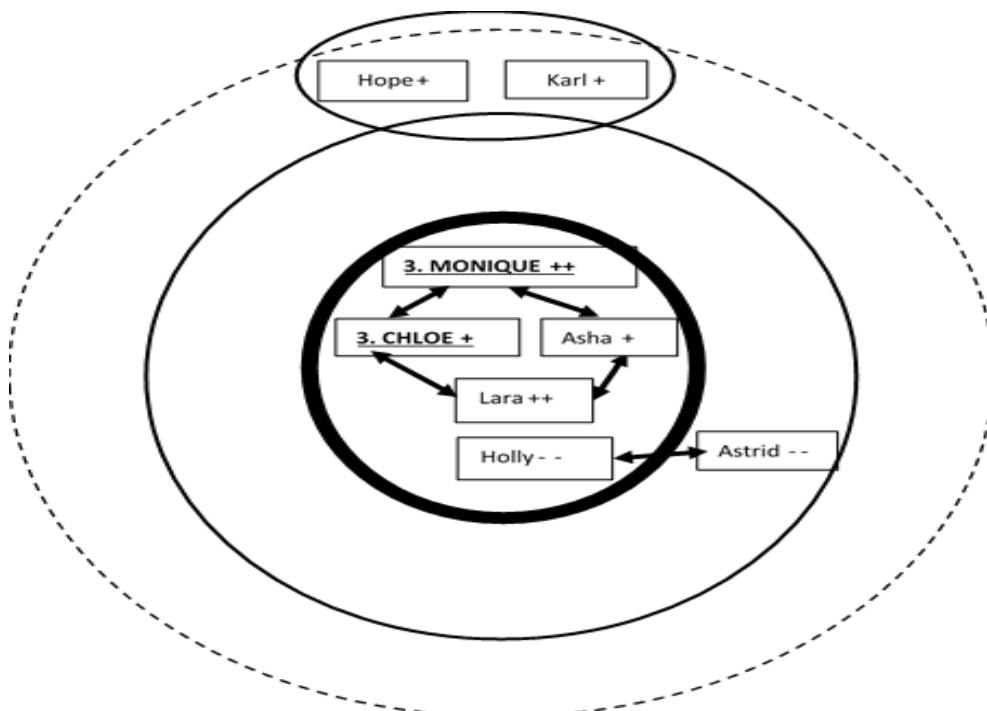


Figure 8a-4: Sociogram showing relationships between children in Boys Pair 3/School 2 (Vinny and Barney) mealtime group

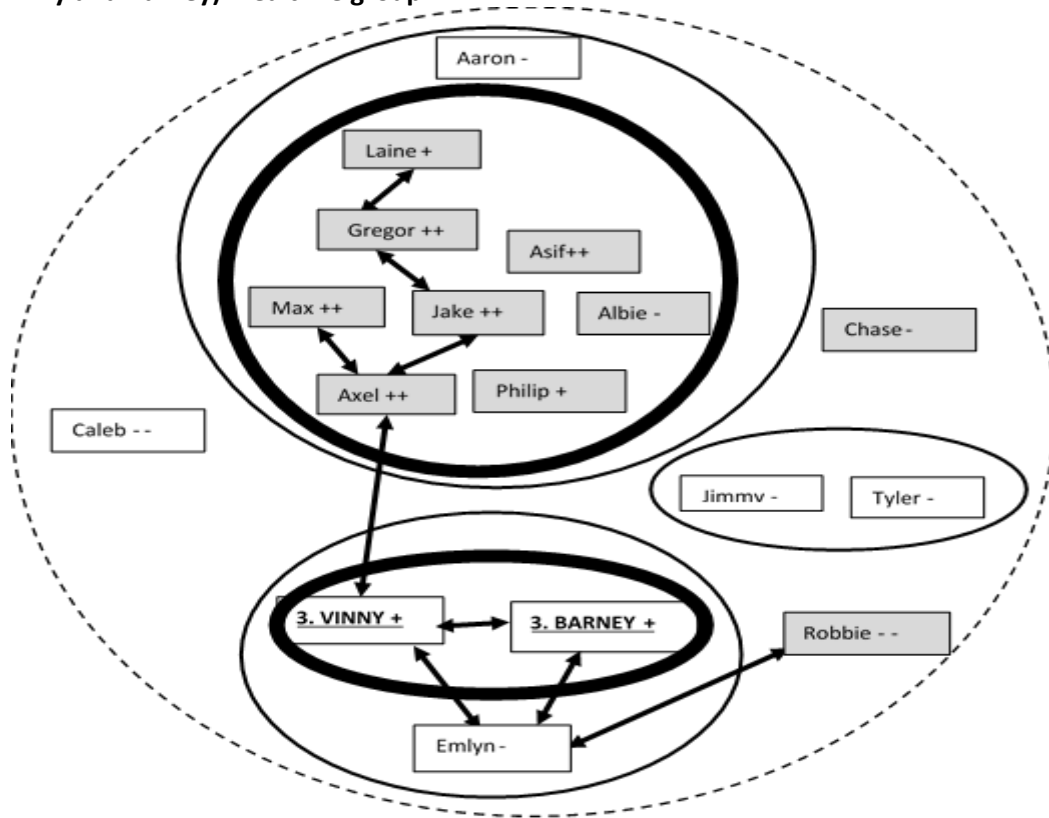


Figure 8a-5: Sociogram showing relationships between children in Girls Pair 3/School 2 (Ana and Thea) mealtime group

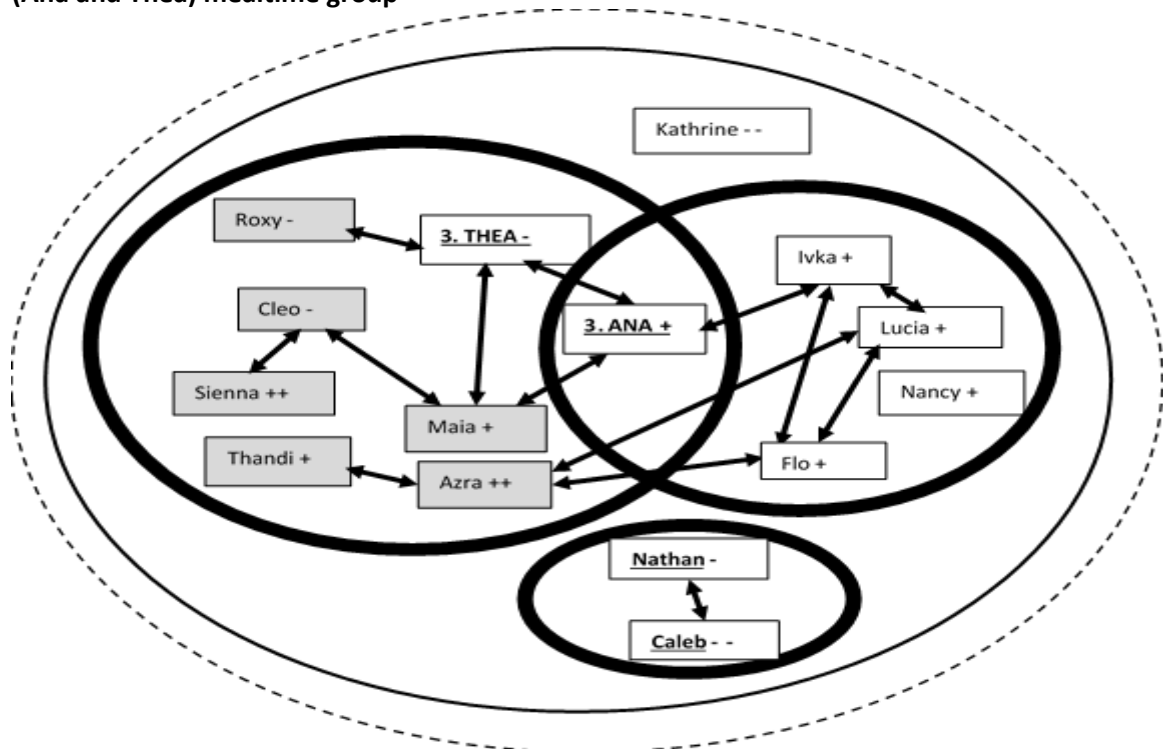
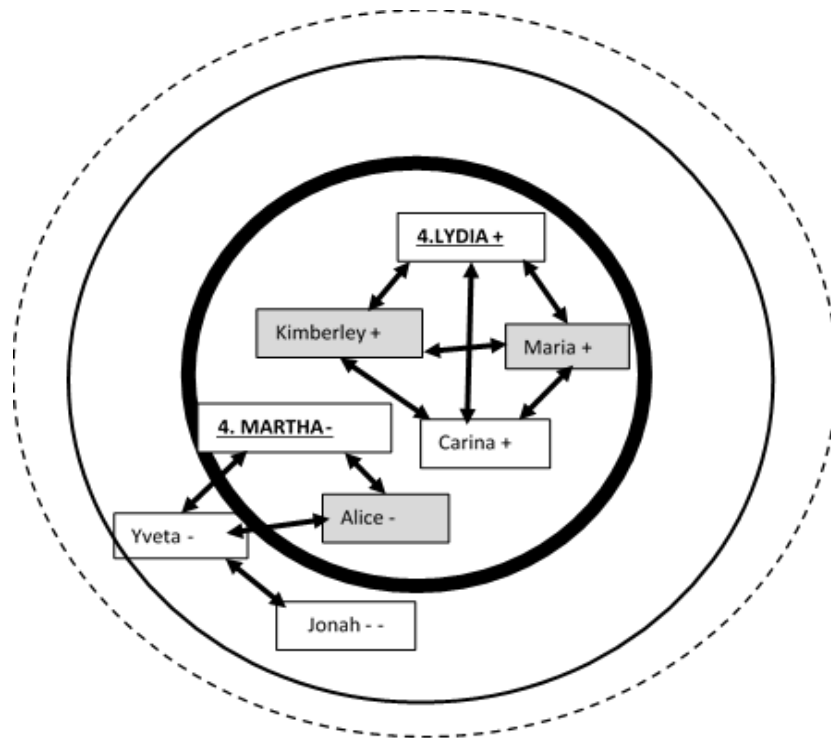


Figure 8a-6: Sociogram showing relationships between children in Girls Pair 4/School 2 (Lydia and Martha) mealtime group



8a.3 Features of the mealtime groups

8a.3.1 Size

The groups varied in size. The whole groups included between 8 and 17 children. If only including children from the cluster level and core (i.e. without the most peripheral, infrequent members) they ranged from 6 to 15 in size. The core group membership (those who sat together most frequently) ranged from 2 to 10 children. All the groups had one large core with between 5 and 10 members. Five of the 6 groups also had smaller two-person cores and/or clusters.

8a.3.2 Gender

The mealtime groups were almost exclusively single gender. In a few cases, one or two boys (four in total) were part of a majority girls' group (such as Karl who was part of the majority girls' groups shown in Figure 8a-2 and Figure 8a-3). No girls were part of boys' groups.

8a.3.3 Mixing across Year 5 classes

The sociograms from School 2 (see Figure 8a-4 to Figure 8a-6), where there were two parallel Year 5 classes, showed variation in the extent to which children mixed with peers from their parallel class. When considering the whole groups, all included a mix of children from both classes. However, the core groups varied between being comprised only of children from one class (four of the six cores), majority from one class (one core), and equally split between classes (one core).

8a.3.4 Best friendships

These mealtime groups were clearly contexts for children's reciprocated *Best friendships*. For 54 of 56 *Best friendships* of children in the sociograms, both members of the pair were in the same lunchtime group. For 42 (77.8%) of those 54 *Best friendships*, both members of the pair were within a single group core of those who sat together most frequently. In only a few cases, children had *Best friendships* outside the group represented here. For example, in Figure 8a-4, Robbie had a *Best friendship* with Emlyn but also with a boy in another group (not included here as it did not contain focus children). Also, note that Monique and Chloe (Girls 2) are part of a network of best friends with two others within the core of one group (see Figure 8a-3) but that they are also part of a core on their own which is peripheral to another group (see Figure 8a-2). As such, their *Best friendship* had two different social contexts.

All but two of the 54 *Best friendships* (96.2%) in the groups, formed part of a network of friendships involving a number of children. These might take the form of an enclosed cluster of friendships as for Lydia, Maria, Carina and Kimberley in Figure 8a-6 where each was a best friend of all the others and there are no best friendships beyond these. (Note their core group also included Martha and Alice who were part of different enclosed best friendship network.) In other cases, *Best friendship* networks formed a larger looser set of connections with friendships creating a chain from one individual to the next as in Figure 8a-4 with Vinny, Axel, Max, Jake, Gregor and Laine. As with this last example, in several cases these chains spanned cores within the group as a whole or, occasionally, connected to children at more

peripheral levels of the group as for Gabe in Figure 8a-1. In a couple of cases, there was a single isolated best friendship between two children that formed no part of a wider network as with Nathan and Caleb in Figure 8a-5.

It should also be noted that the mealtime groups included children without *Best friendships*. A minority of children who had no best friends at all in their year group such as Remy in Figure 8a-1 and Nancy and Kathrine in Figure 8a-5 were also part of these groups (14 out of 68 children – 21%). (In none of these cases was this due to missing data about reciprocation of a best friendship nomination.) Eight of these children were members at the core level.

8a.3.5 Peer acceptance

In all of the groups, the majority of children at the core level were *Accepted or Highly accepted* by the group (40 children of 54 – 74.1%).

Overall, *Poorly or Very poorly accepted* children made up the majority of children at the more peripheral cluster or group levels of membership (16 of 23 – 69.6%). However, this varied across groups. *Poorly accepted* children were a majority at the core/cluster level in groups for Girls Pair 1 (5 out of 6 - Figure 8a-2), in Boys Pair 3 (7 out of 8 - Figure 8a-4) and in Girls Pair 4 (2 out of 2 - Figure 8a-6). In the other three groups, there were very small numbers (1 – 3) at these peripheral levels and they included either no *Poorly accepted* children or a mix of those who were *Accepted* and *Poorly accepted*.

The majority of children with a *Best friendship* in these groups (38 of 54 – 70.4%) were *Accepted or Highly accepted* by their group but 29.6% were not. Similarly, of the small number of children without a *Best friendship* (14 of 68 children – 20.6%), six were *Accepted or Highly accepted*.

Chapter 8b Phase 2 findings: Relational social processes in mealtime peer interactions

8b.1 Chapter overview and precis of findings

In this sub-chapter, I present analysis of video footage of selected children's mealtime interactions. The analysis, using the Grounded Theory approach described in Chapter 7, was aimed at identifying relational social processes embedded in mealtime interactions which may both influence and be influenced by peer relationships. The findings are used to address my research questions:

RQ1: What is the nature (relational processes embedded in talk and activities) of children's informal peer interaction during school mealtimes?

RQ3: How are children's informal mealtime interactions with peers associated with their friendships and relationships with the wider peer group?

First, in Section 8b.2, I present an overview of the relational processes; some overarching concepts used to explain their connection to peer relationships; and an explanation of the organisation of the subsequent detailed analysis. Section 8b.3 includes descriptions of the processes with reference to examples from the video transcripts along with discussion of their connection to the peer relationships represented by the sociograms presented in Chapter 8a. In Section 8b.4, I synthesise these findings to highlight the connection between each different type of peer relationship and relational processes.

Precis of findings 1: Mealtime social processes and their relational tendencies:

- The 15 potential relational mealtime processes identified during my analysis were categorised into overarching types, termed relational tendencies: first '*Moving towards*' or '*Moving away*.' Second, they were classified further as '*Symmetrical*' or '*Asymmetrical*' to indicate the contribution of children on each side of an interaction to its relational impact.

- **Moving towards/Symmetrical processes** involved interaction partners moving close to one another through interactions, potentially strengthening bonds between them. These processes were: *Involving* (involving self and others in activities or in talk about interests/attitudes); *Developing group homogeneity* in practices or attitudes; *Being mutually responsive*, *Affiliative teasing*, *Asserting the self* to organise group activities; and *Affiliating*.
- **Moving away/Symmetrical processes** involved interaction where children on both sides tended to distance from one another, potentially weakening bonds between them. This would typically involve one party denigrating, alienating or excluding another and that other acquiescing to this treatment by withdrawing from the interaction or even physically from the group. These processes were: *Marginalising*; *Alienating with difference* (one party uses behaviour which alienates the other who then withdraws); *Disregarding* the contribution of another and asserting oneself instead; and *Targeting* someone by denigrating them or expelling them from the group.
- **Asymmetrical processes** involved one party resisting the movement of another child either towards them or away from them. **Moving towards/asymmetrical processes** were *Resisting homogeneity* (those on one side of an interaction try to assert their views or values but the other resists); *Resistance to assertion of the self* (a child takes centre stage by sharing knowledge or food but is refused and/or denigrated in return); and *Rejecting or resisting affiliation* (one child makes an overture of friendship which is refused).
- **Moving apart/asymmetrical processes were:** *Effortful tuning* (one party withdraws from engagement with the other, but the other nevertheless works hard to engage them); and *Targeting meets resistance* (one party persistently refuses to acquiesce to attempts to denigrate or exclude them).

Precis of findings 2: Associations between peer relationships and mealtime relational processes:

- **Group connection or cohesion:** This was encouraged by involvement of group members in games or conversations of interest. These could involve high levels of energy, humour and laughter, and mutual responsiveness which seemed likely to encourage and reinforce their involvement. This was a forum where children could learn about subject matter and activities of interest as well as group norms for behaviour so enabling them to participate effectively in future group activity.
- **Affiliation between best friends and other individuals:** Mutual responsiveness within interactions was the main form of affiliation observed. This occurred between best friends, both reflecting and generating intimacy which might be necessary for maintaining the relationship. Generation of such intimacy seen between non-best friends may signal the emergence of new relationships. Other more intermittent forms of affiliation included affirmations of others and providing help.
- **Exclusivity of groups or friends:** Implicit in homogeneity or intimacy between group members or friends was a degree of exclusivity in relation to those outside the interaction. This simultaneous inclusion-exclusion sometimes became dramatic and explicit, for example, when group members joined together to expel an individual.
- **Alienation and resistance between best friends and others:** There were instances during group interactions where one best friend targeted or disregarded the other, apparently for their own enjoyment or to enhance their own standing in the group. However, those who were targeted in these circumstances tended to have strong social positions within their group. They resisted such treatment, maintaining their participation and composure and so, perhaps, also their social position. There were also cases of children who displayed social competence by working to overcome awkwardness or hostility in conversations with best friends others which may have helped in developing and maintaining amicable relationships.
- **Resistance and power struggles within groups:** When a child took centre stage in the group in a way which might have raised their profile (telling lively stories or

sharing food) sometimes others acted to resist or undermine them. Over time these kinds of actions may have affected the relative status positions of children on different sides of the power struggle.

- **Double binds of children in a weak social position:** 1. These children were sometimes excluded from participating in interactions by others in stronger social positions. This reinforced their marginal status and also prevented them displaying or practising skills that could improve their standing. 2. Sometimes children were forced by others to leave the group, often in a state of upset. Once gone, they were blamed for their upset, so doubly reinforcing their weak position.

8b.2 Overview of the mealtime relational processes

8b.2.1 The whole set of mealtime social processes

As explained in Chapter 7, my analysis treated talk and other non-verbal aspects of mealtime interaction as 'social actions' and I looked for sets or sequences of such actions which constituted social processes of significance for peer relationships. In Table 8b-1, I list the labels given to the 15 processes identified during my analysis. They are described in detail below in the sections indicated in the table. The table also shows my categorisation of the processes into some overarching types: *Moving Towards* versus *Moving Away*; and *Symmetrical* versus *Asymmetrical*. These are explained next.

Table 8b-1: School mealtime processes categorised in terms of *Moving towards* or *Moving away* and in terms of *Symmetry* and *Asymmetry*

	Moving towards (Symmetrical)	Moving towards or Moving away meets resistance (Asymmetrical)	Moving away (Symmetrical)	Section where described
1.	<i>Involving</i>		<i>Marginalising</i>	8b.3.1
2.	<i>Developing group homogeneity</i>	<i>Resisting homogeneity</i>	<i>Alienating with difference</i>	8b.3.2
3.	<i>Mutual Responsiveness</i>	<i>Effortful tuning</i>	<i>Disregarding</i>	8b.3.3
4.	<i>Affiliative teasing</i>	<i>Targeting meets resistance</i>	<i>Targeting to denigrate or expel</i>	8b.3.4
5.	<i>Asserting self</i>	<i>Resisting assertion of the self</i>		8b.3.5
6.	<i>Explicit affiliation</i>	<i>Rejecting or resisting affiliation</i>		8b.3.6

8b.2.2 Relational tendencies of mealtime processes: *Moving towards* or *Moving away*

At the broadest level, I categorised processes (see Table 8b-2) into those inclining children to ‘move towards’ others potentially strengthening bonds between them (see the processes in the first column of Table 8b-1 such as *Involving*, *Mutual responsiveness* and *Affiliative teasing*) and those inclining them to ‘move away’ potentially weakening bonds between them (see the processes in the third column of Table 8b-1 such as *Marginalising* or *Targeting to denigrate or expel*). I have termed these inclinations as ‘relational tendencies’: seen in one-off examples of interaction they do not necessarily reflect or determine the nature of the relationships between individuals involved. However, if they were indicative of patterns of interaction between those individuals it would seem more likely that they would do so.

The terminology of ‘making moves’ might seem to imply a degree of intention or even strategy on the part of the individuals who were making them. However, this cannot usually be inferred from observations and it might be more accurate to think of

children reacting to one another in the moment. Processes characterised as *Moving towards* or *Moving away* did not only happen between individuals. As shown below, they also occurred between members of a whole group or subgroup or between an individual child and a whole group or subgroup.

Table 8b-2: Overarching categories: *Symmetry* and *Asymmetry* in *Moving towards* one another and *Moving away*

MOVING TOWARDS – SYMMETRICAL INTERACTIONS	
The individual moves toward other(s) →	← Other(s) moves toward child
OR	
MOVING TOWARDS MEETS RESISTANCE – ASYMMETRICAL INTERACTIONS	
The individual moves toward other(s) →	Other(s) move away from child by ignoring their move or actively distancing →
MOVING AWAY - SYMMETRICAL INTERACTIONS	
The individual/group tries to move away from other ←	The other yields and relationship or position in the group is undermined →
OR	
MOVING AWAY MEETS RESISTANCE - ASYMMETRICAL INTERACTIONS	
The individual/group tries to move away from other or move other away ←	The other counteracts move to maintain relationship or position in group ←

8b.2.3 *Symmetrical* and *Asymmetrical* social processes

Judgements about whether an interaction involved children in a process of *Moving towards*, *Moving away* – or somewhere in-between - depended on the contributions of both (or all) parties involved in the course of that episode of interaction. This was clarified by my further characterisation of the processes as being '*symmetrical*' or '*asymmetrical*' (see again Table 8b-2) which took into account both actions and reactions across the course of an episode.

In *Symmetrical* processes, both partners tended to move towards each other or both move away. For example, children might be equally positively responsive to one another (both *Moving towards*) such that both sides are supporting their relationship (e.g. in a *Mutually responsive* interaction). Alternatively, a child may yield to the attempts of one or more others to denigrate them, for example by withdrawing from the interaction or leaving the group (both *Moving away*), such that their own standing is lowered and possibly the standing of the other(s) is raised. By contrast, an *Asymmetrical* process involved resistance to moves by another. One child might resist the attempts of another to denigrate them (*Moving away*) – for example by use of humour (*Moving towards*) - such that they maintain social positions and hold off attempts by that other to lower their standing in a group. Or one child might make affiliative moves to another (*Moving towards*) without that other reciprocating. The rebuff would instead tend to weaken their bond (*Moving away*). As such asymmetrical processes can be considered as sitting between those which involve strongly moving towards or moving away from one another.

8b.2.4 ‘Sets’ of mealtime processes

Finally, bearing in mind the *Moving towards/Moving away* and *Symmetrical/Asymmetrical* categories, I have grouped specific social processes into sets as shown along the numbered rows in **Table 8b-1**. The basis for these groupings was that they contrasted with one another so that describing them one after another provided comparisons which powerfully highlighted the characteristics and significance of each process. For example, processes in Row 4 *Affiliative teasing – Targeting meets resistance – Targeting to denigrate/expel* all involved a group ‘attacking’ an individual. However, the character of the ‘attacks’ varied and met with varied reactions on the part of the targeted child. Considering them together highlights these differences. These groupings are therefore used to organise my analysis of the individual processes in 8b.3.

8b.3 Descriptions of the mealtime social processes and their connections to children's peer relationships

The descriptions of the mealtime social processes are set out in this section. Each grouped set of processes are first summarised in a table which gives an overview of the process and elements drawn from the video examples which have been analysed. The summary shows which processes involve the focus child(ren) *Moving towards* or *Moving apart*, and which are *Symmetrical* or *Asymmetrical*. Also noted are the peer relationships between children who were involved in that process in the relevant analysed episodes.

Below each summary, I provide a detailed description of the process components supported by quotes from the video transcripts and sometimes by longer extracts. Extracts are labelled according to their content and the particular focus children involved. I include discussion of the interactions in relation to the relationships between the children involved.

8b.3.1 Set 1 relational processes: *Involving* versus *Marginalising*

This set includes processes which encourage children's engagement in group activity and interaction, and, by contrast, those which discourage participation.

Table 8b-3: Overview of Set 1 relational processes *Involving* versus *Marginalising*

Relational tendency	Overall process	Components of the process	Peer relationships context in examples
<i>Moving towards</i> <i>Symmetrical</i>	<i>Involving</i> Involving self and others in collective practising/ development of activities or in talk about interests or attitudes	<ul style="list-style-type: none"> • Cultural activities encouraging attention and participation • Activities/games used to coordinate and scaffold children’s collective participation • Joint construction in moment-by-moment action • Being attuned to one another (see also <i>Mutual Responsiveness</i> below) 	Whole or subsection of group
<i>Moving apart</i> <i>Symmetrical</i>	<i>Marginalising</i> Marginalisation of <i>Poorly accepted</i> children from engagement in conversation or activity	<ul style="list-style-type: none"> • Lack of engagement with or outright refusal of attempts of <i>Poorly accepted</i> children to participate • <i>Poorly accepted</i> child makes contributions which are possibly inept, awkward or out of synch with group interests or style • Denigrating contributions made by <i>Poorly accepted</i> child (sometimes regardless of whether those contributions are inept) and contribution attempt ends 	Subsection of group vs individual (very poorly accepted)

8b.3.1.1 *Involving*: Involving in collective practising or development of activities, interests or attitude as a basis for group cohesion (*Moving towards/ symmetrical*)

One main relational function of mealtime talk and activities was that they formed a focal point for bringing groups or sections of groups together in joint interactions. These interactions were often lively and energetic events which invited the engagement and attention of the group (whereby they move towards one another). This is evident in ‘*The wearing the glasses game*’ in which the girls at Thea and Ana’s (Girls Pair 3) table take part in play which involves them passing a pair of glasses around for each girl to try while the others react. The flowing interaction sequence is characterised by surprise (‘*Oh my God!*’), animation (‘[Ana] reaches out her hand in

front of Thea - towards Cleo- indicating to Cleo that she wants her to pass the glasses to her') and laughter ('The others are all looking and some giggling').

Elements of some more formal games served a function of coordinating and scaffolding children's collective participation. They determined whose turn it was and how they should act. Children could use the game structures to secure the ongoing participation of group members when their attention had moved elsewhere: for example, during a game of Chinese Whispers, Natalie encourages Mimi (Girls Pair 1) who has become distracted to re-focus and take her turn in the game.

Close engagement and turn-taking were also characteristic of conversational interactions which were not subject to explicit rules, although these often involved a smaller subsection of the group. One such context was when children came together to take part in creative dialogues which involved them in making collective responses to the world around them. A main example of this was the playful discussion in Extract 8b-1 which revolved around the chicken which best friends Monique and Chloe (Girls 2) had left on their plates.

Extract 8b-1: 'I refuse to eat my own sisters' - Girls Pair 2: Monique and Chloe

Chloe says, 'Mmm?' and leans round Monique to look at Erin.

Erin says, 'People killed it [the chicken].'

She sits back and pauses. Then replies 'Yeah, I know but it let itself die.'

Erin responds, 'Noo. Because it can't stay awa...; it can't stay alive.'

Monique chips in putting her head on one side, 'Are you not gonna eat it?'

Chloe looks at Monique and shakes her head, 'No'

Monique looking straight at Chloe says, 'Why not?'

Chloe looking straight back into Monique's eyes with a very serious face says, 'I refuse to eat my own sisters.'

Chloe rocks forward and starts giggling.

Monique chuckles and says, 'But it's not your sister.'

Chloe turned towards Monique with her finger up and says - again very seriously - 'Mmm. They're my ancestors. Chicken's are my ancestors.'

Also serious, Monique responds, 'I accidentally ate it.'

The girls are practising – and perhaps developing – a surreal and humorous form of interaction where the food is personified and they touch on moral issues related to food waste and eating taboos ('I really, really feel for this chicken cause it let itself die for us....and I don't wanna eat it'; 'I refuse to eat my own sisters'). They are exploring

meaning in the world around them in significant depth but also in a spirit of fun. The girls play their parts with seriousness but the comedy and enjoyment are apparent from the giggles that punctuate the conversation. They go on to engage in some clever word play:

Extract 8b-2: 'I refuse to eat my own sisters' continued - Girls Pair 2: Monique and Chloe

Chloe responds, 'I like chicken-s. I like chickens but I don't like chicken.'

Erin chips in, 'Actually that's more than one chicken....'//.....ANOTHER GAP THEN

Monique does not respond to any of this - but instead immediately says to Chloe, 'And I guess you don't eat...bacon either because apparently the pig is your Grandma.'

Erin looking at them and chips in, 'You don't like bacon.' Points at Chloe. C-Chloe you dont like bacon. You like bacon-s.' Erin giggles. Chloe and Monique giggle in return.

As such, the girls weave numerous elements into this conversation but in a very spontaneous way. Chloe and Monique in particular – but also Erin– are bouncing ideas off one another in a very natural flowing way which suggests a process of joint construction in moment-by-moment action where one contribution provides the jumping off point for the next. Similar involvement is seen between Boys Pair 3 Vinny and Barney and their friend Emlyn when they jointly create a comedy dialogue around the Chipstick crisps that Emlyn is eating.

The central players in these dialogues are highly attuned to one other. When children are already best friends, as were Monique and Chloe or Vinny and Barney, this is perhaps not surprising. However, their engagement with some other central players is incongruent with their mealtime peer relationships: Monique and Chloe also engage with Erin who displays wit and is included in the joint construction even though she is *Very poorly accepted* in her main eating group and has no *Best friendships*. Similarly, in another example Vinny and Barney contribute to conversation about a wall display in the lunchroom about the value of education. This conversation is sparked by talk from Tyler and Jimmy who are both *Poorly accepted* and have no *Best friendships*. Participation in such creative conversation while seated together may then offer a vehicle for those on the social periphery to become more integrated within a group.

8b.3.1.2 *Marginalising children who are Very poorly accepted (Moving away/symmetrical)*

By contrast, evidence of exclusion from mealtime peer activity showed that it was a more negative social experience for some children. This suggested the reverse of the inclusive process just described in 8b.3.1.1, such that attempts to engage in peer culture by a child with weak peer relationships appeared to reinforce their marginal status within a group (moving away from one another) and so to potentially perpetuate if not worsen their relationships.

An example is in interaction of Monique and Chloe (Girls Pair 2) with Holly. Although all three girls are core members of the group (i.e. they sit together frequently), Monique (*Highly accepted*) and Chloe (*Accepted*) form part of a network of best friends which also includes Asha and Lara. Holly's social position is weak: she is *Very poorly accepted* within the group and is best friends with Astrid who is also *Poorly accepted*. Monique and Chloe appear dismissive of Holly's attempts to participate in group activity. Once this occurred during the '*I refuse to eat my own sisters*' episode partially referred to above. Holly interjects into their surreal conversation about chickens:

Extract 8b-3: '*I refuse to eat my own sisters*' continued – Girls Pair 2: Monique and Chloe

Holly from the other end of the table says, 'Yeah. I wouldn't want to eat him dead, I'd rather roast it alive.'

Chloe and Monique look at Holly and then Chloe looks at Monique wide-eyed [implying this was an odd thing to say].

Monique and Chloe immediately turn back to one another and continue talking. The implication is that Holly's contribution is strange even though, to the outsider, the dialogue is already surreal and strange. This contrasts with their laughter in response to their best friend Lara's brief contribution to the conversation. The sense that this refusal to engage with Holly is because of their attitude to her is reinforced by other similar moments of dismissal.

The contrast between this and the original '*I refuse to eat my own sisters*' dialogue (Extract 8b-1) is stark. In the latter, children responded to and elaborated on what

the previous speaker said. Here Monique and Chloe stop Holly's contributions in its tracks (she withdraws). Their reactions are not dramatically rude but nevertheless shut her out. Their relative positions in the group suggest several possible explanations. Monique and Chloe may respond negatively to what Holly says because of their poor liking of her; or because they regard her manner of interacting as awkward or strange. Either way, these explanations do not bode well for Holly. Monique and Chloe are not accepting of Holly's attempts to participate or of Holly herself.

For some *Poorly accepted* children, there may be more intermittent versions of this process at work. For example, Boys Pair 1 Gabe (*Accepted* with two *Best friendships*) blocks Remy (*Very poorly accepted* with no *Best friendships*) from participating in their game of 'Never have I ever...'. However, there are other times when group members engage enthusiastically with Remy.

8b.3.2 Set 2 relational processes: *Developing group homogeneity, Resisting homogeneity and Alienating with difference*

This set includes processes which, once children are participating in interaction, support similarity of interest, knowledge, skill and attitude within mealtime groups; where an attempt to quash difference is resisted; and where a child is alienated by another's 'difference'.

Table 8b-4: Overview of Set 2 relational processes: *Developing group homogeneity, Resisting homogeneity and Alienating with difference*

Relational Tendency	Broad process	Components	Peer relationship context of examples
<i>Moving towards Symmetrical</i>	<i>Developing group homogeneity</i> in group practices and attitudes	<ul style="list-style-type: none"> • Mutual reinforcement of interest and engagement in valued activities or of attitudes and values 	Group or subgroup
		<ul style="list-style-type: none"> • Modelling/ transmission/ reciprocal scaffolding of valued knowledge, skill, ideas and interactional style 	Individual organising or giving info to group
		<ul style="list-style-type: none"> • Labelling, ridiculing or dismissiveness of incorrect/ low status practices (perhaps by associating those practices with low regard for person who engages in them) • Use of (verbal) force or shame to create norms for behaviour or to encourage conformity to existing norms 	Individual/pair enforcing behaviour of other individual
<i>Moving towards Asymmetrical</i>	<i>Resisting homogeneity</i> in group values	<ul style="list-style-type: none"> • Asserting a point of view and attempting to secure agreement with it • Meeting resistance – refusing to give way to opposing point of view 	Pair vs individual
<i>Moving apart Symmetrical</i>	<i>Alienating with difference</i>	<ul style="list-style-type: none"> • Asserting ‘unorthodox’ style of interaction • Other withdraws from interaction and leaves 	Individual vs individual

8b.3.2.1 Developing group homogeneity in cultural interests, knowledge, attitudes and practices (Moving towards/symmetrical)

Extracts indicated that children not only participated jointly in cultural activity but that mechanisms were at work which encouraged homogeneity in peer culture within mealtime groups. As such, I saw the mechanisms as involving children in *Moving towards* one another by enabling and encouraging common knowledge, interests and practices.

In part this was about mutual reinforcement of interest and engagement in given subject matter. As in the '*Wearing the glasses game*' (8b.3.1.1), once a subject or activity had captured the attention of several group members, their attention and responses seemed to be mutually reinforcing leading to a sustained period of joint engagement around the same activity. There was a kind of chain reaction in engagement from one girl to the next with interest of one appearing to encourage – perhaps model - excitement and engagement of the next. This was seen during other episodes including when Boys Pair 3, Vinny and Barney are part of a similar chain of interest during responses to a poster on a wall display or when Boys 1, Kieron and Gabe are involved in a conversation about carnivorousism (Extract 8b-6). Thus, the subject matter involved was collectively established as a legitimate focus for the group perhaps making it likely that it will be revisited in the same or similar form another time.

By contrast, some activities received disapproval so perhaps became unlikely areas of future engagement. This seemed probable when Monique (Girls Pair 2) is dismissive of Holly singing the '*I play Pokemon-Go*' song. It is also suggested when Kieron (Boys Pair 1) has 'dabbed' and Lee (Boys 2) tells him '*You dab too much, Kieron. You make dabbing old.*' In this exchange, which has a humorous feel, Lee implies not only that crazes pass out of fashion but that it is their over-use which may make this happen. The humorous conversation about dabbing then continues:

Extract 8b-4: 'You make dabbing old' - Boys Pair 2, Eddie and Lee

Lee turns back towards Remy who says, 'He made this dab old (dabs to the right) and this dab old (dabs to the left) but he hasn't made this dab old' (Does his own variation).

Lee responds, 'Because that dab is stupid and you made it old.'

Eddie is laughing. Remy laughs

Remy says, 'Nah cause my cousin made it up.'

Lee says, 'Well then, your brother doesn't know how to dab.'

Remy replies, 'No my cousin!'

Eddie tries to interject - 'Remem...'

But Lee continues, 'Your cousin? Your cousin doesn't know how to dab.'

There is also an implication here that in-ness or out-ness attaches to a person depending on their 'correct' conduct in relation to an activity ('...*that dab is stupid and you made it old!*'... '*Your cousin doesn't know how to dab!*') as well as an in-ness or

out-ness of the activity itself. Finally, there is a suggestion that the individual who engages in the craze may be responsible for influencing its in-ness or out-ness perhaps through their own in-ness or out-ness. Despite the jokiness, there is a warning here to Lee's peers that social standing in a group is tied up with keeping abreast of what are correct and valued practices and what are not. Outness appears to invite ridicule.

Indeed, one of the functions of the mealtime interactions appeared to be to enable children to keep up to date with cultural practices which were valued by their mealtime group. They acted for one another as a ready source of knowledge or expertise about areas of interest. An example is in Extract 8b-5 where Eddie (Boys Pair 2) passed on information about Pokemon characters and activities:

Extract 8b-5: Pokemon Cards - Boys Pair 2: Eddie and Lee

Freddy smiles then asks, 'Nick, what Pokemon cards did you get?'

Lee is onlooking.

Nick, still eating, holds up 3 cards to show Freddy.

Joey says, 'Fearows are a really hard one to get.'

As Nick puts his cards down Eddie says, 'Pharoah?'

Joey begins to correct him, 'Fear...'

Eddie - 'I mean Fearow. Can I see Fearow?'

Joey - looking at Lee - 'I know why cause Pharoah it would be spelt different'

Nick eats for a few moments and then stands up to sort through his cards and says, 'It was.'

Eddie - looking at Joey says, 'Oh yeah. I've got Fearow on the PTU game.'

Joey gives a questioning frown.

Eddie - 'The online Pokemon card game.' Joey nods.

Eddie continues 'And I had Zapdos, Moltres and Articuno.' Joey widens his eyes.

Nick still standing puts the cards back in his pocket as Eddie speaks.

Eddie continues, 'Three types of Articuno.'

There is a long pause with all onlooking and eating.

Nick is still standing finishing his water.

Then Nick asks, 'But which one's Bulbasaur, again?'

Kieron appears from the side from another table and says, 'He's the one who looks a bit like a cat. And he's green.'

Nick, 'Oh yeah, that guy.'

Eddie - 'With the big fat bulb on his back.'

Some other examples of transmission occurred during initiation of games such as when Gabe (Boys Pair 1) teaches his group to play 'Never have I ever...' and when, Gwen (Girls Pair 1) organised her group to play a clapping game.

This transmission is not necessarily unidirectional. In the Pokemon example above, while Eddie is providing information he is also corrected by Joey when he misnames 'Fearow' as 'Pharoah'. Similarly, when Natalie (Girl's Pair 1) has instigated a clapping game, she instructs others in what to do but is also subject to corrections of her own hand actions by Mimi (Girl's Pair 1).

As such, children reciprocally scaffolded one another's practice of valued activity. This was also the case with creative dialogues (see again '*I refuse to eat my own sisters*' Extract 8b-1 above) where children clearly went beyond simple replication of existing phenomena to respond to aspects of the world around them through a process of adaptation and elaboration of each other's ideas. There were also signs of modelling and transmission of the style of creative dialogues to children who were not a central part of them. For example, later in the '*I refuse to eat my own sisters*' conversation, we see small contributions from Asha, Holly and Lara who may then be tentatively adopting this surreal form. Such accumulation of nuanced knowledge and understanding about current peer culture, presumably built up children's social efficacy in the sense that they would be able to participate more effectively or fully the next time the same or similar topic or activity was introduced.

In addition to establishing joint interest in and understanding of peer culture, mealtime interactions could also serve to foster homogeneity among group members in relation to normative values or attitudes. This was perhaps achieved through *mutual reinforcement* of a point of view as when Boys 2, Kieron and Gabe along with Lee enthusiastically affirm their common assertion that being a carnivore is a bad thing:

Extract 8b-6: 'Dangerous!' - Boys Pair 1: Kieron and Gabe

Kieron interjects, 'You can die from being a carnivore.'

Lee, 'Yeah, you really can.'

Gabe looking at Freddy, 'You definitely can because you wouldn't have had your 5-a-day.'

Kieron, leaning forward with an eager smile towards Lee, talking over Gabe, 'That's what Nick once said, I was like, I was saying, 'Are you crazy, Nick?' Nick said soon he might become a carnivore!' Kieron has a happily horrified voice - small smile breaking out as he speaks.

Lee replies 'Oooooo' and they look at each other with scandalised smiles.

Kieron glances round at Nick on another table.

Lee puts his face against Gabes arm and says with comedy emphasis, 'Dangerous!'

At other times conformity was promoted by use of force or shame rather than affirmation and consensus. For example, Lee (Boys Pair 2), challenges Nick having discovered that he and others have been pressuring a boy in a younger year group to give them Pokemon cards. Joey steps in and stridently 'shuts down' Lee's objections ('Lee! Don't interfere! Jesus Christ! Get your own conversation to interfere with'). Given the apparent strength of Lee's feeling about this matter, it might have been expected that he would resist Joey's admonishment. Instead, he yields and Nick continues to show his 'stolen' cards. Joey is Lee's best friend and also appears in several other episodes to be both valued by others (see Extract 8b-18) and forceful in his exercise of power. Perhaps then, even Lee, who is himself often very forthright, is not willing to risk his friendship or to challenge the power that Joey is exercising in support of the behaviour of other group members. Consequently, in this example, Lee's standpoint (Don't steal; Don't bully) which is aligned with adult school values is rejected. By implication, anti-school norms for behaviour in this group have been endorsed.

In another example, Barney (Boys Pair 3) is subject to ridicule by two boys who have discovered he has been playing a playground game with a girl. Barney's shaming is reinforced by the fact that his best friend Vinny refuses to admit that he has also been involved in the game. This appears to be an example of enforcement of the norm of gender separation which is already clearly visible in the mealtime groups themselves (see Chapter 8a). As such, I suggest the result is that the boys are '*Moving towards*' one another in that the result is likely to be common adherence to codes of conduct and subsequent acceptance of one another for correct behaviour.

8b.3.2.2 *Resisting homogeneity in group values (Moving towards/asymmetrical)*

The last section included examples of children *Moving towards* via enforcement or mutual reinforcement of shared norms which were likely to align their interests, attitudes or behaviour. By contrast, there was evidence that children did not always give way to one another during attempts to enforce such homogeneity (i.e. an attempt at *Moving towards* was resisted). In the following Girls Pair 4 example, Lydia

and Martha debate with Carina the correct etiquette around birthday presents reflecting their different experiences at home:

Extract 8b-7: 'It's rude to ask' - Girls Pair 4: Lydia and Martha

Lydia, continues, 'And I got a book of...'

Carina interrupts and asks, 'How much is it?'

Lydia says, 'I don't know and I don't want to ask cause it's my birthday present.'

Martha says, 'It's rude.'

Carina says, 'I know but I still do ask. Like "Is it between this and this?"'

Lydia says, 'My parents just...'

Martha echoes, 'My parents just go "It's a birthday present." My parents are just like, 'It's rude to ask.'"

Kimberley says, 'My parents sometimes say, sometimes they don't.'

Martha, 'You know it's rude to ask how much it costs?'

Carina says, 'Yeah.'

Martha's persistence in asserting that it is rude to ask about the cost of a present suggests she wants to put Kimberley's behaviour in the wrong and to enforce acceptance of her own position as normative. Carina's refusal to comply (*'I know but I still do ask'*) suggests that she does not accept Martha's rule and will not assimilate acquiesce. Both girls are encountering a different point of view and resistance to their own. Lydia is Carina's best friend but Martha, who seems to be pushier here, is not and is *Poorly accepted* by the group. Their relationship as well as their differences may play a part in the lack of agreement. In addition, unlike the norms about stealing and gender separation discussed in the last section, birthday present etiquette does not directly affect the conduct of the group and so there may be a weaker imperative to resolve the difference.

8b.3.2.3 *Alienating with difference* (Moving apart/symmetrical)

In a different example, there appears to be giving way rather than resistance by one individual who encounters another's different style of interaction. As with the *'I refuse to eat my own sisters'* dialogue above (Extract 8b-1), Chloe's (Girls Pair 2) behaviour here has an air of the surreal:

Extract 8b-8: The 'mad smacky dab' - Girls Pair 2: Chloe and Monique

Mimi suggests to Chloe that she dabs. Chloe says to Mimi, 'That's the mad smacky dab.' Mimi points to another girl as if suggesting she dabs but Chloe interrupts by starting to sing, 'Mad smacky, dab, dab. Mad smacky dab, dab', She wiggles about in her seat slapping herself on the forehead.' Mimi looks at her impassively.

Chloe continues, 'Mad smacky dab, dab. Mad smacky...' - then growls. Mimi continues to look but says nothing.

Mimi has her hand in front of her face - possibly embarrassed.

Finally Mimi gets up and leaves.

Whereas in the chicken dialogue, Monique (Chloe's best friend) is a willing partner and others (including best friends Asha and Lara) attempt to join in, here Chloe's eccentricity appears to discomfit Mimi (Girls Pair 1). When Mimi puts her hands in front of her face – apparently embarrassed - Chloe does not moderate her behaviour, so, apparently, *Moving away* from Mimi through this alienating act. Mimi then leaves. Rather than accepting Chloe's style of interaction, joining in with it (as Monique might) or resisting it (overtly or by asserting an alternative) Mimi thus gives way such that she too withdraws, *Moving away*. This example may be an indication of why Chloe is *Poorly accepted* by Mimi's group of which she is a peripheral member.

8b.3.3 Set 3 relational processes: *Mutual responsiveness, Effortful tuning and Disregarding*

This set includes processes involving sensitive and responsive engagement with others on the one hand and of insensitive engagement or unresponsiveness on the other.

Table 8b-5: Overview of Set 3 relational processes: *Mutual responsiveness, Effortful tuning* and *Disregarding*

Relational Tendency	Broad process	Components	Peer relationship context of examples
Moving towards Symmetrical	<i>Being mutually responsive</i> Mirroring and being attuned	<ul style="list-style-type: none"> • Reciprocal physical mirroring sometimes with flowing rhythmic coordination • Verbal repetition of other's phrase • Effortless to-and-fro-ness, contribution and response 	Groups and individuals (best friends and non-best friends)
Moving towards / apart Asymmetrical	<i>Effortful tuning</i>	<ul style="list-style-type: none"> • Challenging or refusal by one party of what the other has to say • Persistent attempts to have their contributions/point of view accepted by others who are unresponsive • Ends in stalemate OR resolution (finding of common ground and becoming attuned) 	Individual persists against refusal by a pair
Moving apart Symmetrical	<i>Disregarding</i> personal information	<ul style="list-style-type: none"> • Lack of close attention to what other is saying • Lack of sensitivity to feelings of the other when sharing personal information • Instead asserting own information or ideas 'over the top' of what the other is saying • Other is silenced or does not challenge 	Best friends or non-best friends within a group

8b.3.3.1 Being mutually responsive (Moving towards/ symmetrical)

I suggest that the kind of sensitivity and responsiveness already seen above between interaction partners in creative dialogues, games and other conversations was an

important form of affiliation – and *Moving towards* one another - within mealtime interactions.

In its more literal version, this responsiveness involved children in physical mirroring of peers. In the following example, Natalie (Girls Pair 1) breaks off from a conversation she has been involved in and quite spontaneously begins to copy the singing and hand actions of her best friend Eliza:

Extract 8b-9: Hand actions - Girls Pair 1: Natalie and Mimi

Natalie attends to what Mimi was saying and then looks towards Eliza opposite her who is quietly singing to herself and doing a sequence of hand actions to accompany her song. Immediately Natalie sings along with and mirrors Eliza's hand actions... Then Natalie says to Eliza – while doing hand actions with thumbs up - 'I like doing this. It feels really natural.'

The shared knowledge of the routine and the effortless falling in together of the pair amidst the group suggests both reflection and creation of intimacy between them. Similarly, when Natalie and Mimi (Girls Pair 1) play a clapping game with their whole group, joint participation described in 8b.3.1.1 goes beyond taking part. Once physically coordinated hand movements and collective counting are achieved, the game takes on a rhythmic life of its own and the group acts as one, with one child following on from the other until someone makes a mistake. Again, the group members are drawn together as they must be highly attuned to one another in order to synchronise their actions. It seems likely that this type of physical mirroring develops children's ability to attend closely to others.

Indeed, a powerful compulsion to mirror seems at times to be carried over into more complex relational processes which involve social as well as physical coordination. One example, where Lee (Boys Pair 2) with Remy orchestrates Vik's expulsion from the table involves verbal mirroring (*Remy repeats, 'Put your hand up if you want Vik to move off the table. Lee echoes, 'Put your hand up if you want Vik to move'*), and physical mirroring as all the group members – even those who were hesitant – put their hands up to vote to exclude Vik, suggesting that there was social pressure to follow suit. The effect of the coordinated show of hands was also powerful since Vik, who has resisted until this point, gives way and leaves.

A more metaphorical version of mirroring was observed within varied conversations such as in the discussion of carnivorousism above (Extract 8b-6). Here, attunement can be summed up by a dance-like to-and-fro-ness where children engaged in a flowing, contribution and response mode. They take turns to attend and respond with little hesitation and each picking up and showing their agreement by adding to the last comment made by one of the others, so validating what they are saying.

Attunement was also to be found in conversations where an exchange of personal information was taking place and where one child listened carefully to another, although this could be more low key than in the examples above. For example, Natalie (Girls Pair 1) asks a series questions which indicate her interest in what Mimi (Girls Pair 1) was telling her about Mimi's brother's coming birthday party. It has already been noted that in some such responsive interactions participants were best friends such that the responsiveness seems both to reflect and re-affirm their relationships with one another. However, this was not always the case since Mimi and Natalie were not best friends.

8b.3.3.2 Effortful tuning (Moving apart or together/asymmetrical)

In other cases, conversation did not flow and conversation partners did not accept what the other had to say. In such cases children did not always give up but worked hard to try and establish a flowing accepting conversation.

One case involved Monique (Girls Pair 2) meeting resistance from Karl when the conversation turns to a joint birthday party she is planning with Hope and to the fact that he is not invited. She moves from saying the party is a secret to telling Karl quite directly that she does not want him to come. Karl challenges her repeatedly – but without luck – making persistent efforts to get different responses which would involve acceptance within the conversation as well as inclusion in the birthday party:

Extract 8b-10: The birthday party - Girls 2, Day 4: Chloe and Monique sitting with Hope, Karl, Afra and Mimi

Hope continues to Karl, 'We're having a joint birthday party.'
Monique looks at Hope and says with a mock angry face/voice, 'No we're not. That's supposed to be secret!'
Karl laughs. Then says to Hope, 'Can I come to your birthday party?'
Hope says very definitely, 'No!'
Monique Echos, 'No!'
Karl says, 'Why?'
Hope, 'We're not allowed anyone.'
Monique says to Karl, 'Not you.'
Hope says, 'I'm not sure that our mums...'
Monique puts her hand around her mouth and says in a growly voice, 'We're only going to invite one person....Me!'
Hope says, 'And me.'
Karl says to Monique and Hope, 'No. You guys. You two can come to my house. I've got a like...'
Monique says - again in an angry voice, 'No! I don't want to go to your house' - pointing at Karl.
Karl says, 'You should ask me.'
Hope is holding some fingers up as if indicating numbers.
Throughout, Monique is saying 'Not you, not you'
Monique continues '.....not you, not you, not you.'

In another example, Lee (Boys Pair 2) faces similar discouragement from Kieron (Boys Pair 1). Lee's comments about Kieron's food preferences are met with irritation which creates a sense of discord and seems to act as a barrier to achieving attuned flowing conversation where one person agrees and then adds to what the last has said:

Extract 8b-11: 'I don't eat fish' - Boys 1 and 2, Day 4: Kieron and Gabe, Eddie and Lee sitting with Remy, Chris, William and Freddy

Kieron - 'I...I don't eat fish.'
Gabe onlooking throughout.
Kieron continues 'Number 2 has chips too.'
Lee - 'But are you, are you allowed...'
Kieron (now beginning to sound annoyed) and repeats with emphasis 'Number 2 has chips too.'
Lee, 'Yeah, but are you allowed to eat fish?'
Kieron (continues in an irritated tone) 'No! I don't even wannoo.'
....Lee simultaneously says, 'So you're a pescatarian.'
Kieron replies - annoyed voice again - 'No I'm NOT. I'm a vegetarian.'

Lee keeps going, effortfully, as if he is trying to finally get his point – which is not very clear - across and understood and to overcome the irritation.

In the first example, Monique persists with her exclusivity even though Karl stands his ground and there is no final resolution during that conversation. In the second, by contrast, there is a moment of resolution when Freddy mentions that he is a carnivore. This changes the direction and tone of the conversation and the boys find common ground. They begin to agree with one another, united against carnivorism (see Extract 8b-6 above), and the conversation continues in a more flowing and upbeat way.

Both cases may indicate a determination to avoid a moment of rejection and to repair an awkward social situation. They could also signal an intention to strengthen particular relationships which are not already on a completely firm footing. In the first example, Monique and Karl are not best friends and are not part of a common core group. Monique herself is *Highly accepted* in her main group and so may be a desirable friend. Karl's resistance to her rejection may then indicate a keen wish to maintain or develop ties with Monique despite her discouragement. In the second example, Lee had earlier in the mealtime made declarations of friendship to Gabe who is also present and is Kieron's best friend. Lee's resistance to Kieron's irritation may represent concerted efforts to establish closer ties with the pair.

One further example shows that effortful tuning may also be used in attempts to repair problems between best friends. There appears to be ongoing resentment by Vinny (Boys Pair 3) of the time that best friend Barney (Boys Pair 3) is spending with *Poorly accepted* Jimmy. This is expressed explicitly several times but also seems to be accompanied by a refusal on Vinny's part to engage fully with Barney. Nevertheless, Barney makes continued attempts. For example, Barney tries to engage Vinny in a conversation about the unhatched eggs they are caring for:

Extract 8b-12: Eggy McEggster - Boys Pair 3: Vinny and Barney

Barney continues, 'Jimmy and me were saying....'

Vinny - irritated voice - interrupts, 'Yeah cause you're always with Jimmy!'

Barney replies looking straight at Vinny, 'No. Cause in the morning. Because our eggs were going to die.'

Barney turns and looks at Tyler and salutes and says, 'Eggy McEggster of the RAF'

.....

Barney turns to look at Vinny.

Barney does a military style 'Attention!' and moves his hand out and back to his forehead as he does so.

Barney says, 'No.....We love you, Eggy McEggward.'

Then to Vinny, 'Aren't you gonna do any mourning for your eggs?'

Vinny says, 'No.'

These children's resistance to others' distancing may indicate social competence – and indeed confidence – which could explain and also stem from their strong social positions in their mealtime groups (core members of groups, with *Best friendships*, *Accepted*). Their determination may also indicate the value they accord existing or potential relationships with the other individuals involved.

8b.3.3.3 Disregarding personal information (Moving apart/symmetrical)

Symmetrical Moving away (where one party moves away from the other and the other gives way rather than resisting) did not only affect *Very poorly accepted* children in the way shown in 0. There were a number of occasions when children moved away from others who were *Accepted* and/or with whom they had a *Best friendship* and when those others yielded so that relationships between the parties seemed likely to be weakened.

In some cases, this appeared to be the result of a lack of sensitivity by at least one of the interaction parties to the other while they went about asserting themselves or their own knowledge. In one case, Eddie (Boys Pair 2) had been suffering from a nosebleed. He had not volunteered information about his ailment. Rather it is on display for all to see, so leading other children to question him about it. When Lee (Boys Pair 2) takes up the subject, the questioning becomes a kind of interrogation with questions fired at Eddie in quick succession and responses bent to fit with Lee's

account of nosebleeds as perilous. Thus, instead of offering help or empathy in response to difficulty, Lee uses this very personal experience for dramatic effect in a way which is potentially scary for Eddie. Indeed, Eddie does not look as if he is enjoying the exchange. However, rather than objecting, he goes along with the questioning.

This disregard could reflect their lack of *Best friendship* (although both have a strong social position being *Accepted* in their wider group and both having two *Best friendships*.) However, there are also examples of carelessness with feelings of a best friend. In one case, in stark contrast to mutual responsiveness seen during some other interactions between them, Chloe's (Girls Pair 2) attempt to share some quite personal and special information is ignored, shouted down and so invalidated by her best friend Monique (Girls Pair 2):

Extract 8b-13: 'Put your hands up if....' - Girls Pair 2: Chloe and Monique

Chloe begins in a funny baby voice - 'Put your hand up if someone's coming to yours for Cwismas!' Chloe puts her hand right up. Karl puts his hand up half way.

Chloe continues '....because my 19 year old bwother is.'

Monique puts her hand straight up and speaks loudly over Chloe, 'I'm going to my house.'

Afra pushes her chair back, puts her hand right up and interrupts M saying, 'I'm going to Butlins, so beat that' - she pumps the air with her hand.

She is interrupted as Chloe looks back at Afra, leaning towards her and says, 'Well I'm seeing my brother...'

Monique repeats loudly, 'I'm going...'

Chloe continues, '...for the first time. So beat that.' She pumps the air with her hand and jumps about in her seat.

Monique thumps the table and says loudly, 'Huh-hermmm!'

Hope and Karl say 'Sssshhh' – Karl has his fingers to his lips.

There is a pause and she says slowly and loudly, looking at Karl, 'I'm - going - to - my - house!'

Having made repeated attempts, Chloe withdraws from the interaction and is effectively side-lined as Monique continues the conversation with Hope and Karl.

This incongruence with what might be expected between best friends could be indicative of poor-quality of the friendship; it could in part be a result of the 'Put your hand up if...' format of the interaction which encourages everyone to offer a contribution at once; it could also be the case that the specific social group present impacts on the interactions between the two friends. In Chloe and Monique's main group, they are part of a network of best friends but during this particular mealtime

they are seated with members of their Girls Pair 1 second group where Monique is *Accepted*, but Chloe is *Poorly accepted*. The group relationships may affect the dynamics of interaction. Either way, the example illustrates the risk involved in sharing personal information even when best friends are present.

8b.3.4 Set 4 relational processes: Targeting of an individual from *Affiliative teasing* to *Expelling from the group*

This set involves processes where a number of group members single out an individual. At one extreme, the practice is friendly and affiliative. At the other, it is brutal and exclusionary.

Table 8b-6: Overview of Set 4 relational processes: *Affiliative teasing, Targeting meets resistance, Targeted teasing, Targeting to expel from a group*

Relational tendency	Broad process	Components	Peer relationship context of examples
<i>Moving towards</i> <i>Symmetrical</i>	<i>Affiliative teasing</i>	<ul style="list-style-type: none"> • Targeting accompanied by smiling or laughter on part of targetters and target • Easily rebuffed and short in duration • Moves on to the next person 	Number of group members tease an individual (<i>Accepted</i> , with <i>Best friendship</i>)
<i>Moving apart</i> <i>Asymmetrical</i>	<i>Targeting meets resistance</i>	<ul style="list-style-type: none"> • Persistent or nakedly aggressive targeting • Target responds repeatedly with a variety of resisting ‘moves’ • Target maintains composure • Others give some support to target or finally show restraint 	Individual targeted by best friend as part of a group or by best friend alone
<i>Moving apart</i> <i>Symmetrical</i>	<i>Targeted teasing</i>	<ul style="list-style-type: none"> • Coordinated and concerted targeting by number of others • Period of refusal by the target • Ending in annoyance/upset • Target leaves • Denigration of target for refusal/leaving 	Individual (<i>Poorly accepted</i>) targeted by others including Best friend (also <i>Poorly accepted</i>)
<i>Moving apart</i> <i>Symmetrical</i>	<i>Targeting to expel from group</i>	<ul style="list-style-type: none"> • Concerted effort to make very poorly liked child leave the group • Targetters join with or recruit others to build pressure • Period of refusal by the target • Ends in dramatic upset and departure by the target • Target denigrated for being upset 	<i>Very poorly accepted</i> individual (no <i>Best friendship</i>) targeted by mix of others

8b.3.4.1 *Affiliative teasing* (Moving towards/ symmetrical)

There was a relatively gentle form of teasing that appeared to be affiliative in that it accorded the target attention and involved a degree of excitement (because it suggested the contravention of norms for behaviour) without going too far. The benign nature of the teasing was signalled by the fact that those involved smiled or laughed (akin to rough and tumble play) and that the teasing was relatively easily rebuffed and moved on quite quickly from any particular individual. For example, in an imaginary scenario of Lydia and a boy found kissing in the playground bushes, teasing moves on quickly from, Lydia (Girls Pair 4) when she refutes it. The notion that such teasing is affiliative is in line with Lydia's strong social position in the group: she is *Accepted* and has three *Best friendships*.

8b.3.4.2 *Targeting meets resistance* (Moving towards/ asymmetrical)

'Targeting' was a term used by, Gabe (Boys pair 1) during their game of 'Never have I ever...' to refer to the process of focusing on a given individual to do them down. I have adopted this term to describe such behaviour inside and outside games. The affiliative teasing described just above can be considered a mild form of targeting.

There were instances of targeting where the target persistently resisted more serious attempts to exclude or denigrate them. One key example of this was when Chloe (Girls Pair 2) became the butt of a potentially humiliating set of Chinese Whispers which forced her to declare out loud her love for several boys:

Extract 8b-14: Chinese Whispers - Girls Pair 2, Day 2: Chloe and Monique

Chloe looks at Karl directly and nodding - with a small smile - says, 'I love James' eyes widen. Monique looks at Chloe smiling then giggling Monique and Hope look at each other. Karl replies, 'Yeah, you do really.'

Karl leans and whispers something to Monique ('I'm gonna change it so Chloe has to say..this is what I'm gonna say') and then looks and glances at Hope and says, 'This is the real thing' and whispers again 'This is what I'm gonna say...'

Monique squeals 'Oh no! Oh...'

She smiles and leans quickly over to Chloe to whisper, 'I love Remy'

At a first glance this could be interpreted as quite innocent affiliative teasing. However, in contrast to affiliative teasing, this episode of targeting has an air of unpleasantness because it continues for an extended period and involves coordinated concerted efforts by other group members (Monique, Hope and Karl) with their efforts solely focused on Chloe.

In a different example, there is more nakedly aggressive and repeated targeting by a best friend. First, Thea tries to stop Ana (both Girls Pair 3) from listening to some private gossip (see Extract 8b-23) by twice pushing her head away (a rare example of physical aggression) and saying, '*You don't need to know.*' On the next day she cruelly mimics Ana's voice and repeats it until she gets attention and complicity for her parody in the form of laughter from others in the group. Soon afterwards, as the girls play the glasses game (see above -8b.3.1.1), Thea's comment about Ana wearing the glasses also tips into cruelty (*'Bleeeah! You don't look sexy.'*)

In both the examples above the target resists. Chloe does this in a succession of moves which give a sense that she is parrying shots:

Extract 8b-15: Chinese Whispers continued - Girls Pair 2: Chloe and Monique

- Identifying what the targetters are doing and calling them out:

Monique leans in to Chloe and whispers 'I love Freddy'

Chloe puts a hand on her hip and nods her head and says 'I knew it!' Monique smiles then looks back at food.

- Not rising to the bait and laughing along:

Chloe looks at Karl directly and nodding - with a small smile - says, 'I love James' eyes widen.

Monique looks at C smiling then giggling Monique and Hope look at each other.

Karl replies, 'Yeah, you do really.'

Chloe looks at Karl then Hope nodding and still with a small smile says, 'Yeah I do.'

- Using humour to sidestep

Nisa - sitting on another table leans round in front of her and says 'You do?'

Chloe nods her head.

Nisa, 'You love, James?'

Chloe nods and simultaneously says, 'Of course I don't.'

- Deliberately misunderstanding

Monique squeals 'Oh no! Oh...'

She smiles and leans quickly over to Chloe to whisper, 'I love Remy'

Chloe forwns quizzically and looks at Hope and Karl and says, 'I love pizza?'

Hope says 'I said 'I want to marry James.' ...//

Karl giggling points at Chloe 'She changed it on purpose.'

Chloe says, 'No I heard it.' and returns to eating.

- Reversing the attack

Monique leans towards Karl and Chloe whispers to Monique [which is intended for Karl], 'Hallooo. I love Lara.' then Chloe goes back to eating.

- Demonstrating her own intimacy or synchronicity with Monique

With all looking at him Karl says, "'Holey, moley macaroni.' Stops and coughs then continues 'I don't like it, it's so smelly just like jelly.'

Chloe is shaking her head and Monique says 'No! Holey, moley macaroni....'

At which point Chloe joins in and they chant, in tandem, 'I don't like it, it's so smelly, hurts my belly, just like jelly'

In Ana's case, we also see her using several different forms of resistance:

Extract 8b-16: The 'wearing the glasses' game continued - Girls Pair 3, Day 2: Thea and Ana

- Continuing to participate after being pushed away AND laughing along and responding to cruelty with compliments

Thea pauses with the glasses in her hand and says in an angry comedy voice, pulling an ugly face to mimic Ana, 'Maia! Maia! Let me see!'

The girls - including Ana - giggle.

Thea puts the glasses on and Ana looks at her and says, 'Oh my God, Thea. You look really nice.'

Ana repeats 'You look really nice, though.' She pats Thea on the shoulder.

Thea smiles and puts her hands out onto the shoulders of Ana and Maia facing Roxy.

- And, finally, reversing the attack

As Ana takes the glasses off, Thea says to her, 'You look like a little baby.'

And Ana replies, 'You look like a little baby too.'

In both cases, the resistance means that the episodes end with the girls maintaining their composure. This contrasts with examples below where targeted children gave way and exited the group. The social context may be important here. Both are core members of a group; both are part of a network of best friends in their group and have several *Best friendships*; both are *Accepted* (at least, for Chloe, in her main group).

Perhaps the varied and persistent resistance the girls put up is indicative of social competence which is important for maintaining a power balance in relationships with others. Equally, Chloe and Ana's relatively strong positions in their groups may provide a sense of security which means they are not too unsettled by the targeting and feel strong enough to maintain their resistance. Indeed, we see moments of support or restraint from friends and group members during the targeting episodes. In Chloe's case, as noted already, Monique eventually steps back from the targeting which Karl is continuing to encourage (*Monique - looking at her food - says, 'Why don't we stop talking about that person [i.e. James]?'*). In Ana's case, her other best friend Maia contradicts Thea when she pushes Ana's head and tells her she does not need to know what they are talking about (*'Yeah you can know'*). And when Thea is

unpleasant to Ana about how she looks wearing glasses, three others (including Maia) contradict Thea (*More quietly Roxy is saying, 'You look good.' Sienna echoes and says, 'You look good' and puts her thumb up.' And Maia says, 'You look cute.'*). These contributions are momentary but may nevertheless represent important social support.

8b.3.4.3 *Targeted teasing* (Moving apart/symmetrical)

There is also an example where teasing just tips over into unkindness as demonstrated by the fact that the target is finally annoyed and, instead of resisting, gives way and leaves. Martha and Lydia (Girls Pair 4) with other group members pressure Martha's best friend Alice to eat some of Martha's apple tart against her will. This interaction is mild compared to examples in the next section. However, it goes beyond affiliative teasing and shares characteristics with more serious targeting: there is a coordinated and concerted effort by the targetters; a climax where Alice seems annoyed and leaves; and, finally, a disparaging comment and gesture from Martha suggesting that it is Alice who is at fault. Alice's giving way and Martha's consequent criticism may have reinforced Alice's (and perhaps also Martha's) position as *Poorly accepted* within the group.

8b.3.4.4 *Targeting to expel* children who are *Very poorly accepted* (Moving apart/symmetrical)

The harshest form of targeting involved a concerted effort to completely expel a child from the seated group to replace them with another who was preferred. The process is described as *Symmetrical* in cases where 'the victim' gives way and leaves, even though this may not happen immediately nor be the outcome the target wants.

There were two main examples where focus children were involved in this kind of targeting. In both cases, the choice of child for exclusion reflects the target's social standing in the group: in both cases *Very poorly accepted* with no *Best friendship*. In both, the 'targetters' engaged in a verbal battle with the target which built up to the final moment of exclusion. Thus, on the day before Erin is forced from the group, Mimi (Girls Pair 1), supported at different moments by others, is trying to remove

Erin from the table and replace her with Karl (part of the core group, *Accepted with a Best friendship*). By turns, Mimi gives reasons then reacts angrily to Erin as if she is being unreasonable for resisting the pressure to move.

Extract 8b-17: Excluding Erin - Girls Pair 1: Natalie and Mimi

Mimi: But we said Karl would sit here yesterday

Erin: You can't just do that. It's not your choice where people sit

Mimi: By what?

Erin: Where people sit

...

Afra: He usually sits here. Astrid and Erin you don't

Erin: We're allowed to sit here if we want (looking at Afra)

Afra: (High pitched, defiant) Yeah. I know. I didn't finish my sentence (Erin looks at Afra)

Mimi: Because no one else is complaining.

Similarly, Lee (Boys Pair 2) tries to insist that Vik should make way for his best friend, Joey:

Extract 8b-18: Excluding Vik - Boys Pair 2: Eddie and Lee

Lee repeats, 'Now Joey can't sit with us...and Joey's allowed to sit with us whether you like it or not.'

Vik responds, 'I'm allowed to sit here whatever day I want. It's not their table and they can't tell me to get off.'

Lee - 'And Joey as well. Cause Joey is my best friend.'

In both cases, the targetters recruit others or coordinate to build pressure on the target ending in a climactic moment of departure. The following day, Girls Pair 1, Natalie explains to others with Karl how they have moved away from Erin, saved places and blocked her joining them, ending with Erin storming out of the lunchroom:

Extract 8b-19: 'She just came and bolted' - Girls Pair 1: Mimi and Natalie

Karl: 'Yeah.' Then turns to Afra to explain 'I put your..Annie put your coat there...

....but then Natalie thought there was another there so she moved it...and as soon as she moved it - then Erin - and as soon as she moved it

Natalie: I know (Afra looking at her with wide eyes) She just came and bolted (moves hand in horizontal line to demo movement)

Lee is instrumental in encouraging others to vote Vik off the table:

Extract 8b-20: Excluding Vik continued - Boys Pair 2: Eddie and Lee

Lee echoes, 'Put your hand up if you want Vik to move.'

Eddie puts his hand straight up - then Lee - Chris and Ned copy more tentatively.

Lee continues - 'OK everyone on the table. Apart from Vik.'

Vik gets up and leaves.

Eddie says, 'Thank you' with a quiet squeak.

Lee says, 'Well that was easier than I expected.'

Eddie - 'He's like 'Oh no I'm ???'' (imitating Vik's imagined crying).

In both cases, note that the episode ends with a focus child (Natalie about Erin; Eddie about Vik) disparaging the target child for the (understandably) upset manner of their leaving. In this way they are painted as being unreasonable or in the wrong and so, in a way, doubly excluded.

8b.3.5 Set 5 relational processes: *Asserting the self* meets acceptance or resistance

This set includes processes involving children placing themselves in the centre of group action which, on one hand, may be accepted or, on the other, may meet resistance.

Table 8b-7: Overview of Set 5 relational processes: *Asserting the self* is accepted or meets resistance

Relational tendency	Broad process	Components	Peer relationship context of examples
<i>Moving towards Symmetrical</i>	<i>Asserting the self</i> in organising activities	<ul style="list-style-type: none"> • Suggesting activity • Recruiting by modelling and directing others • Clarifying rules • Directing action • Group members comply and activity is successfully enacted 	Individual organising group
<i>Moving towards Asymmetrical</i>	<i>Resisting to assertion of the self</i>	<ul style="list-style-type: none"> • Child takes centre stage with valued knowledge or offering of food • Pointing out of inaccuracies in knowledge • Asserting own knowledge instead • Refusal of valued food • Complaints at unfairness of shares • Triggering other complaints about sharer 	Individual asserting knowledge or sharing food with group

8b.3.5.1 *Asserting the self* in organising activity (Moving towards/ symmetrical)

There were several examples of children placing themselves in the centre of action by initiating and organising games. This involved some degree of persistence and forthrightness to achieve cooperation by others. However, once achieved, the end result was a flowing and energetic game.

For example, in the Girls Pair 1, clapping game we see Natalie taking the role of organiser. She suggests the game (*'Guys, shall we play this game?'*), recruits others to the game by example (*Natalie looks towards Karl's end of the table - he puts hands on table in same manner as Natalie*), corrals those who do not follow (*'Afra put your hands out'*), clarifies the rules with Karl, (*Then swings head round to look at Karl - N: 'Or are we just going to do 'One, two, three...?' Karl nods: 'Just do "One, two, three"'*) before finally getting the game going (*'Ok. Go!'....Looks as game proceeds with*

clapping and counting passing from one to the next. Takes her turn at the moment it comes). Natalie could be described as 'driving' the action here which as it proceeds engages the whole group in a lively activity accompanied by laughter. Yet her strident manner of control is underlined later in the game in the following exchange:

Extract 8b-21: Clapping game continued - Girls Pair 1: Natalie and Mimi

Mimi starts clapping on Eliza - 'One, two, three'

Natalie reaches and touches Mimi, frowning, and says emphatically 'No! Mimi shouldn't always start.'

Several others begin passing the clap.

Natalie repeats, 'No! Mimi shouldn't always start.'

As Astrid claps her hand, she leans over and grabs it - 'No! No! No!'

Afra says 'I'm starting' and claps on Natalie.

Natalie says, 'It's Annie's go!' and then puts her hand back on top of Afra's and repeats 'No! It's Annie's go.'

Even though Natalie has three *Best friendships*, she is *Poorly accepted* within her whole group. She may both energise and annoy others with this directive behaviour.

8b.3.5.2 *Resisting assertion of the self*: displaying knowledge and sharing food (Moving towards/ asymmetrical)

In other cases, there was overt resistance to children asserting themselves. For example, children might display their knowledge in an area of cultural interest. This presentation of knowledge served a purpose of placing the child centre-stage in a group so that resistance suggested a challenge to the child themselves as well as to their knowledge. Thus, in the following extract Boys Pair 2 (Extract 8b-22), Lee repeatedly points out inaccuracies in Eddie's animated account of the famous Suarez football save:

Extract 8b-22: Famous Football Goals - Boys Pair 2: Eddie and Lee

Eddie joins in quite loudly and with animation - the others all attend - to say, 'Have you seen that save Suarez did, erm, in the box they shot and he just jumped across the...' Eddie gestures with his hand.

Lee is shaking his head.

Eddie, 'It's so funny...'

Ned smiles and asks, 'Was it a header?'

Eddie, 'No he handballed it.'

Remy, listening intently from the other end of the table, across Joey and Freddy speaking to one another, calls, 'Eddie, he went like that.' - Remy gestures with his hand.

Eddie, looks at Remy who is now fully miming the save, and talks with increasing speed and excitement - 'Yeah! Have you seen it.' and laughs putting his hand to his forehead.

All now attending to them.

Ned is smiling.

Lee now leans towards him and asks, 'In the World Cup quarter final?'

Eddie replies, 'Uh, yeah.'

[Remy has walked round and is now shaking Eddie by the shoulder saying 'Eddie, Eddie, I've seen...' but Eddie is intent on Lee.]

Lee says, 'I've seen it so many times.'

[Remy continues to shake Eddie's shoulder saying 'Eddie, remember when...' - but still no response.]

Eddie says, 'Ukraine...whatever they're called. Iran wasn't it?'

Lee replies, 'Ghana'

Eddie continues, 'Ghana just whacked it and he just jumped in the way and...' He puts both arms up and mimes jumping across the goal. '

Lee, in a serious voice, corrects him, 'He didn't jump in the way. He was already in the way.'

Remy walks round to Eddie's other side and back again.

He taps him on the shoulder and begins again, 'Eddie!' This time Eddie turns round to look at him and Eddie continues, 'Remember when... and then he' - Remy mimes Suarez' reaction to the goal.

Eddie giggles.

Meanwhile, Lee is saying 'He just stuck his hands up.'

Remy goes to sit back down.

Lee continues - 'He just went like this Eddie' - mimes putting his hands up in the air and back down 'and blocked it.'

Eddie: 'No there's another one where he just like jumps across the goal and saves it.'

It could be the case that Lee is just a stickler for facts. Yet the fact that he immediately goes on to tell his own story of Oxlade-Chamberlane's famous goal rather suggests a competitive intention to downgrade Eddie's standing as a football pundit. However, unlike examples where *Very poorly accepted* children were excluded from

participation (see section 8b.3.1.2 on *Marginalising*), in this case Lee's discouragement is ineffective. Eddie sweeps aside Lee's critique and receives plenty of attention from Remy and Ned. Lee and Eddie are not best friends but Eddie is *Accepted* and has *Best friendships* one of which is with Ned.

More negative and perhaps surprising are the reactions received in two examples where girls took centre-stage by sharing food from their packed lunches. As such, the notion that sharing food represents a straightforward affiliative act appears to be simplistic. In the first Girls Pair 3 example, Thandi has a 'Kellogg's Fruit Winder' which may be desirable as a sweet branded product and perhaps also had rarity value as Thandi is the only child in the group with a packed lunch. Ana (Girls Pair 3) and then others repeatedly pester Thandi for a piece of the winder with Ana securing a much larger piece than the others on the grounds that it was her birthday. Others complain that they've had very little and even tussle over small pieces. Ana and Thea (Girls Pair 3) are then audience to a whispered outpouring of anger against Thandi by two other girls which appears to be triggered by the current unfairness but is also about her other perceived unjust behaviour:

Extract 8b-23: Sharing out the Fruit Winder - Girls Pair 3: Thea and Ana

Thea repeatedly tries to grab the piece in Ana's hand without even looking at her but Ana keeps pulling it away.

At this point Cleo is leaning in and whispering to Maia: 'It's because she doesn't like me.'

Thea leans towards her and says, 'Huh?'

Maia replies, 'Mmmm.'

Then Maia turns to Thea and says quietly, 'She's saying that she [Thandi] goes for uh Ana, Roxy and Azra. Because she only gives us tiny bits.' Maia puts two fingers together to indicate a small piece.

Thea is leant in towards Maia, totally attentive.

Ana is looking towards them.

Cleo continues, now looking at Ana, 'It's like in PE....Maia really didn't want to be..Thandi didn't want to be my partner...'

In the second Girls Pair 4 example, Martha has an apple pie in her packed lunch which is home-made and wrapped in a note from her mother suggesting she shares it with her friends. As such, the pie is imbued with personal value for Martha and the refusals she receives when she tries, perhaps over-enthusiastically, to offer it to others make

for a sense of personal rejection. Martha, with others, builds up the pressure on Alice to try the pie included as an example of *Targeted teasing* already described above.

Both examples end with little sense of appreciation at the sharing of food and instead an impression that relationships with the sharer have been soured. In the first case, resentments appear to be fuelled by existing tensions in relationships between girls who are not best friends. In the second, Martha more or less accepts refusal of the pie from Maria (not her best friend but *Accepted*) but then engages in unkind ganging up on Alice who is her best friend but *Poorly accepted* by the group. Indeed, the fact that Martha herself is *Poorly accepted* could contribute to some degree to the resistance to her food sharing and be explained by her over-the-top insistence.

8b.3.6 Set 6 relational processes: *Affiliating and Affiliating meets resistance*

This set includes processes involving children making affiliative moves to others which, on one hand, are accepted or positively received and, on the other, are resisted or rebuffed.

Table 8b-8: Overview of Set 6 relational processes: *Affiliating* and *Resistance to affiliating*

Relational tendency	Broad process	Components	Peer relationship context of examples
<i>Affiliating</i>			
<i>Moving towards Symmetrical</i>	Explicit declarations and affirmations	<ul style="list-style-type: none"> • One party explicitly declares friendship for another • Or one child affirms attributes or behaviour of another • Other child firmly reciprocates 	Individual to individual within group context
	Offering help or support	<ul style="list-style-type: none"> • Offering practical help to child in need • Contradicting attack made by one child on another 	Individual or several help individual within group context
<i>Affiliating meets resistance</i>			
<i>Moving towards Asymmetrical</i>	Knock-backs to declarations of friendship	<ul style="list-style-type: none"> • Making declaration of friendship to another child • Other replies without enthusiasm or confirmation 	Individual to individual in group context
		<ul style="list-style-type: none"> • Making claims of affiliation to another child • Others compete to state their equal or greater affiliation 	Individual to individual with group response

8b.3.6.1 *Affiliating 1: Explicit declarations and affirmations (Moving towards/symmetrical)*

While *Mutual responsiveness* (see 8b.3.1.1 above) was embedded in the to-and-fro of extended conversation, other forms of affiliating consisted of more overt, momentary acts.

One version of this was around explicit reference to friendship. Lydia and Martha (Girls Pair 4) explicitly discussed friendships they had when they were in Key Stage 1. Sitting with them is Flo who is not part of their regular mealtime group. A main part of the conversation is reference to Lydia’s close friendship with Flo when they were younger. This relationship is tangibly recalled through Flo’s use of a nickname for Lydia (*‘Moonbeam’*) and by their re-enactment of a game:

Extract 8b-24: 'Moonbeam' - Girls Pair 4 - Lydia and Martha

Lydia giggles. Flo repeats the gesture and again says, 'Moonbeam.'

Flo leans over and takes Lydia's hand and puts it down on the table in front of her and puts her elbow on top of Lydia's hand as if to keep it there and Lydia giggles. Lydia pulls her hand away smiling.

At the same time, Martha says, 'I didn't think you [Flo] existed in Year 2. I might of. But I definitely...'

Flo is saying, 'Place your hand here now' and points to the spot on the table where she had Lydia's hand before.

Lydia interjects - points twice at Flo and says, turned towards Martha - 'Wait, she was a really good friend to me in Year 2.'

It is notable that intimacy and feelings of connection can remain on the basis of long past shared experience and even though Lydia and Flo are no longer best friends.

In another episode, Ana (Girl's Pair 3) and another girl, Nancy engage in mutual affirmation when discussing the fact that they had just been setting up their class science experiment for the afternoon. They position one another positively as efficient and trustworthy so justifying their teacher's choice of them to do that job. Again, they are not best friends but this re-telling and interpretation of their shared experience seems to constitute *Moving towards* one another. In another case, Kieron and Gabe (Boys Pair 1) and their group are discussing a game of Pokemon played at a lunchtime club. Freddy admits cheating and Kieron then expresses approval of Eddie who '*definitely didn't cheat*'. Here, the affirmation is of a current best friend (Eddie).

8b.3.6.2 *Affiliating 2: Offering help or support (Moving towards/Symmetrical)*

Another type of affiliative act was the offering of help or support at moments of difficulty. The circumstances for this could be quite mundane. For example, when Martha's (Girls Pair 4) orange is squashed, both Yvette (a best friend, *Poorly accepted*) and Lydia (not a best friend, *Highly accepted*) offer theirs ('*Don't worry! You can have mine.*' '*Or mine!*'). Martha accepts the latter. More vital, even though momentary, was support offered when the child was under more serious social threat. For example, there were several cases where children stepped in to defend best friends who were being targeted (see 8b.3.4.2) or excluded. In another case, Gabe (Boys 1)

refutes Joey's repeated assertion that 'Kieron [Gabe's best friend] was obsessed with sex!' ('No he wasn't!').

8b.3.6.3 *Affiliating meets resistance*: Knock-backs to declarations of friendship (Moving towards/asymmetrical)

Examples in section 8b.3.5.2 showed how being at the centre of action exposed children to risks of undermining or rejection. Risk of rejection were perhaps even clearer in instances where a child made direct overtures of friendship which were not fully reciprocated. For example, against the backdrop of warmth and intimacy between Lydia (Girls Pair 4) and Flo as they declare their past friendship (Extract 8b-24 above), Martha (Girls Pair 4) replies with an assertion of her past - and a physical gesture of affection which suggests current - friendship with Lydia:

Extract 8b-25: 'Moonbeam' continued - Girls 4, Day 1 - Lydia and Martha sitting with Maria, Alice and Flo

Martha puts her arm around Lydia and pats her on the back and says, 'Well I was friends with you.'

Lydia assents, 'Mm mm.'

The minimal nature of Lydia's agreement contrasts with her enthusiastic response to Flo and suggests this feeling may not be mutual. Indeed, they are not best friends and, as already mentioned, Martha is *Poorly accepted* in their mealtime group.

Potentially counterproductive declarations were also seen in a group context. In Extract 8-26, Kieron is competing with others to associate himself with Freddy by announcing how many times they have been to his house as well as alluding to the fun they have had with him:

Extract 8b-26: 'I've been to Freddy's house' - Boys 1, Day 4 - Kieron and Gabe sitting with Eddie, Freddy, William, Chris, Remy and Lee

Kieron - 'I've only been to your [to Freddy], I've been to your house twice, Freddy' - Kieron holds up two fingers.

Gabe - 'I've been to Freddy's house three times.'

Kieron, 'Freddy's been to my house before.'

Gabe (nodding) 'Freddy's been to my house twice.'

[Lee talking to Freddy while others are, ends by saying in a baby voice, 'Freddy can I touch your nose?' - leans over and puts his finger on Freddy's nose - Freddy leans away and he leans forward to keep touching it.]

.....

Kieron interrupts (smiling - looking at Freddy), 'Freddy, Freddy, Freddy' until Freddy looks at him. 'Remember when (Ben and ?) went on the top of that, of your caravan.' Kieron holds his hand up to indicate height.

Freddy, 'Yeah'.....

Kieron continues smiling- 'It was so small. And really (inaudible)'

Eddie, 'Freddy, remember that, that um [smiles and wiggles his head suggestively] in the alley that day?'

The competitors attempt to outdo one another. While Freddy's desirability as a companion is emphasised and his status may be elevated, no one is the clear 'winner' in the competition to be Freddy's friend. Indeed, Kieron may have 'lost' the competition, so undermining any affiliative intentions he may have had and perhaps diminishing his social position in the group.

8b.4 Drawing together findings about associations between peer relationship types and mealtime relational processes

The analysis of the video data provided a window onto a variety of relational processes which were embedded in the mealtime interactions of focus children with their peers. In the descriptions in Section 8b.3 above, I have referred to the peer relationships of those involved in the interaction examples which I used to illustrate each process. In this section, I reorganise and synthesise this evidence to identify the mealtime relational processes associated with particular types of peer relationship. An overview of those associations is shown in Table 8b-9 and I discuss these in the remainder of this chapter.

Table 8b-9: School mealtime social processes corresponding to relationship types

RELATIONAL PROCESSES ASSOCIATED WITH PARTICULAR RELATIONSHIP TYPE			
RELATIONSHIP TYPE(S)	<i>Moving towards-Symmetrical</i>	<i>Moving towards or away - meeting resistance (Asymmetrical)</i>	<i>Moving away – Symmetrical</i>
Whole group connection or cohesion	<ul style="list-style-type: none"> • <i>Involving</i> • <i>Mutual responsiveness</i> (coordinating action) • <i>Developing homogeneity</i> 	<ul style="list-style-type: none"> • <i>Resisting homogeneity</i> 	<ul style="list-style-type: none"> • <i>Rejecting on the basis of difference</i>
Best friendships	<ul style="list-style-type: none"> • <i>Mutual responsiveness</i> (mirroring/attuning) • <i>Affirming</i> • <i>Helping</i> (practical/defending) 	<ul style="list-style-type: none"> • <i>Targeting meets resistance</i> • <i>Effortful tuning</i> 	<ul style="list-style-type: none"> • <i>Disregarding</i>
Past/ maybe emergent Best friendships	<ul style="list-style-type: none"> • <i>Mutual responsiveness</i> (mirroring/attuning) • <i>Explicit declaration/affirmation</i> with acceptance or reciprocation • <i>Helping</i> (practical) 		
Individual's overall position within group: Strong (<i>Accepted with Accepted best friends</i>) Mixed (<i>Accepted with no Best friendships/Poorly accepted with Best friendships</i>)	<ul style="list-style-type: none"> • <i>Affiliative teasing</i> • <i>Asserting the self</i> (organising) 	<ul style="list-style-type: none"> • <i>Effortful tuning</i> • <i>Asserting the self – meeting resistance</i> (providing valued knowledge, sharing food) • <i>Targeting meets resistance</i> 	<ul style="list-style-type: none"> • <i>Disregarding</i> • <i>Marginalising</i> • <i>Targeting to denigrate or expel from group</i>
Individual's overall position within group: Weak social position (<i>Poorly/Very poorly accepted with Poorly accepted or no Best friendships</i>)	<ul style="list-style-type: none"> • <i>Involving</i> 	<ul style="list-style-type: none"> • <i>Asserting the self – meeting resistance</i> (sharing food) • <i>Affiliating meets resistance</i> (declaring friendship meets knock-back) 	<ul style="list-style-type: none"> • <i>Being marginalised</i> • <i>Being targeted leading to denigration or expulsion</i>

8b.4.1 Group members involving or being involved and *Moving towards*

Interactions took place almost wholly amongst members of the established mealtime groups in the sociograms in Chapter 8a which represented children who regularly spent their mealtimes together. In my methods, I have made a distinction between these groups which were based on observation and peer relationships (*Best friendships* and *Peer Acceptance*) which were based on subjective judgements by individual group members. Nevertheless, the repeated proximity of group members (often but not always best friends – see Chapter 8a) indicated some degree of connection or cohesion. I begin, then, by considering processes which appeared to bring group members together and which may reinforce this cohesion.

This included the fact that children were involved together in games and conversations of interest. When interest was well-established, children displayed high levels of involvement and/or energy. Games and conversations might take on a flowing quality where children could be highly attuned and responsive (either physically or verbally) to one another, sometimes accompanied by much smiling and laughter. This kind of energy, mutual attention and enjoyment not only secured children's participation in that activity or subject matter in that moment but seemed likely to reinforce their interest in it next time it came up.

There were some important inclusive dimensions to engagement in such activities. In a very practical sense, children enabled joint participation by exchanging information or guidance to one another so that, in that group context, members all had the knowledge or skill necessary to take part in an interaction. Interaction could also involve sparking ideas off one another and so jointly developing new thinking, attitudes or interactional skills. Not all children were main actors in interactions and all children spent periods of time observing rather than participating. However, even then (perhaps particularly then), there were signs of children closely attending to and learning subject matter and styles of interaction from others that could support their inclusion in future interaction. Mealtime involvement with and emulation of peers may be of special importance to children with weak social positions in the group by

offering them the opportunity to strengthen social ties and cultural understanding which could help to improve their involvement.

Indeed, inclusion in a group may have depended on developing understanding of homogenous group-specific practices and attitudes. There were signs of enforcement of normative (or potentially normative) behaviours (e.g. gender separation) and interests through shaming or exercise of power, suggesting that contravention of norms could undermine a child's social standing.

8b.4.2 Best friends and other individuals *Moving towards*

Children also engaged in highly attentive, mutually responsive interactions on a one-to-one basis. Sometimes this occurred between best friends and sometimes between non-best friends. As such, the interactions seemed to reflect both existing familiarity and the creation of intimacy which may be needed to maintain ongoing best friendships but also, perhaps, to signal the emergence of new ones.

Indeed, mutually responsive interactions seemed to be the most prevalent form of affiliation between children. Other forms of affiliation were more intermittent and more momentary. These consisted of one-way or mutual affirmations and offering of help. Small practical offers of help were made to best friends and non-best friends. However, best friends led help-giving when it was given in more dangerous social situations, namely by contradicting the child who was targeting their friend. One explicit declaration of past friendship between non-best friends from different mealtime groups was full of affection and indicated the enduring nature of feelings which children may have for one another even though they have moved apart in terms of their daily experience.

8b.4.3 Exclusive dimensions of group homogeneity and intimacy between individuals

It is clear from some examples presented above in 8b.3 that instances of drawing together with one or more children could simultaneously involve excluding or alienating others. This is to some extent inherent in the notion of group homogeneity

or of intimacy between individuals. If group members have distinct collective interests, attitudes, rules for behaviour and even styles of interaction, then non group members may find it difficult to function successfully in that group. When best friends engage in responsive interactions which are based on past shared experience this draws a line between themselves and those who were not part of that experience. Yet this simultaneous inclusion-exclusion was more explicit when children ganged up to expel one child from a group; or when an enthusiastic declaration of friendship to one child was followed by reticence in declaring friendship to another.

8b.4.4 Alienation and resistance between best friends and other individuals

Instances of targeting or disregarding of one best friend by another were striking because of the contrast with behaviour that might be expected within such a relationship. In one case, a child ganged up with others to tease her best friend over an extended period; in another, the same child asserted her own news over her best friend's attempts to share valued personal information; in a third, attempts were made to denigrate or exclude a best friend during several group interactions. The group context seems likely to be important with the targetter apparently playing to the group audience, perhaps for their own enjoyment or to enhance their standing with others. Regardless, these situations suggested a lack of respect and care for their friend.

The response of these targets, if they were relatively *Accepted* and had several best friends, was interesting since it contrasted with that of the *Poorly accepted* children discussed below (8b.4.6). Rather than giving way in the face of pressure, they offered various forms of resistance to their treatment, continued to interact and to a small extent received back-up from others. They also retained their composure and so could not be censured for displaying upset. Instead, they stayed in the group ready to be accepted back into interactions when the opportunity arose. This successful resistance may have depended on greater social competence than the *Poorly accepted* children possessed, or on social self-confidence stemming from their established relationships with others. It is possible that the target's standing in the

group was affected by such attacks/disregard but they may also have reflected badly on the targetter. Indeed, one of these targetters was *Poorly accepted*.

Another version of resistance between individuals was observed when children worked to overcome awkwardness or hostility they encountered in a conversation. This was observed in the context of a dispute between best friends but also as part of a process of establishing successful flowing interaction between non-best friends. This ability to 'repair' difficult interactions may be an important part of the ability to maintain or establish amicable relationships.

In yet another *Asymmetrical* case, an overture of friendship (by a *Poorly accepted* child) to a non-best friend (who was *Accepted*) was more or less refused. By contrast, one-on-one rejection could be mutual (perhaps suggesting enmity or just a lack of connection between the individuals) and involve a complete halt in interaction, as when the response to alienating behaviour was to leave to join another mealtime group.

8b.4.5 Resistance and power struggles within groups

Unlike cases where one child yielded to an attitude or opinion asserted by another, there were examples of open disagreement within groups which went unresolved. This suggests that, at least on issues which were not central to the functioning of the group, there was the possibility of diversity as well as homogeneity between group members.

There were several other examples which illustrated competitive behaviour on the part of some children who acted to resist and undermine other individuals (non-best friends) who took centre stage within the group. Examples included one boy criticising another's lively and engaging account of a football goal and trying to assert his own instead; a whole group vying to affiliate with a popular boy in response to one child's attempt to signal affiliation with him, and refusal by group members to accept one child's valued food that she insisted they share with her. Thus, children engaged in power struggles whereby actions which might raise the profile of an individual were opposed. Children on both sides of these struggles tended to have

relatively equal (strong or mixed) social positions in their groups. Nevertheless, over time, this kind of action and reaction may have affected their relative status positions.

In another case, supposedly unfair sharing of a packed lunch treat by one girl triggered a covert episode of gossip in which other grudges against the sharer were aired. Thus, resistance could be to cumulative actions and rolled together in a single narrative.

8b.4.6 The double binds facing children in a weak social position

Although, as discussed in 8b.4.1, there were some opportunities during mealtime interactions for children in a weak social position to strengthen their ties with others, the analysis indicated that they also faced substantial barriers to doing so. They seemed to be caught in two types of double bind.

In the first, the *Poorly accepted* child's attempts to participate in conversations were shut down by others who failed to meaningfully engage with or even ridiculed them. Their attempts may have been awkward, annoying or out of step with the group or they may have been perfectly acceptable coming from another child. In this way, the marginal status of that child was reinforced. They were also prevented from displaying or practising interaction skills that may have increased their social competence and social standing thus perpetuating their weak position.

In the second more overtly aggressive scenario, resistance on the part of a poorly liked child was met by concerted and coordinated pressure from the group to the point that they left in a state of upset. They were then blamed for this upset which was cast as unreasonable behaviour. They, therefore, faced unpleasantness by attempting to stay in the group and condemnation for leaving. Again, their weak position and lack of acceptance was doubly reinforced.

The interesting pattern highlighted by Table 8b-9 is that this giving way to moves to exclude (by withdrawing from participation OR by leaving the group) tended to be the preserve of children in a weak social position within the group. Other children

were also subject to moves to exclude or denigrate but, as discussed in 8b.4.4, responded with resistance.

Chapter 8c Phase 2 findings: mealtime topics of talk and activities

8c.1 Chapter overview and precis of findings

In this sub-chapter, I present evidence from my analysis of video footage of selected children's mealtime interactions which focuses on interactional content. By that I mean the topics of talk or activities within which mealtime relational processes were embedded. Much of this content has been referred to within examples presented in the last chapter. However, it is important to describe it separately to highlight the subject matter that motivated and, to an extent, shaped mealtime interactions with relational significance, as well as to examine how far they might be specific to the mealtime context thus contributing to its character as a distinctive school microsystem. As such, these findings further address my research question 1:

1. What is the nature (topics of talk and activities) of children's informal peer interaction during school mealtimes?

In the first three sections, I present three broad although overlapping areas of interactional content identified within the mealtime episodes. In the final section, I note how these build on findings about interactional content from Phase 1 of the study.

Precis of findings about mealtime topics of talk and activities:

- **Reproducing and constructing peer culture:** Peer culture formed a substantial focus for mealtime interactions. Interests and practices were drawn from the wider world including pop and consumer culture; more enduring cultural phenomena including issues of right behaviour and traditional children's culture; food; and elements of the lunchroom environment. Different groups had different interests some of which were gender stereotypical.
- **Sharing and interpreting of information about their joint or separate lives outside the lunchroom:** Sharing of information also offered children the opportunity to learn about different experiences and lives of peers beyond the lunchroom. This

could be about past or future experiences shared by a group or section of a group in or out of school. It could be about individual experiences.

- **Negotiating mealtime rules and organisation:** Much of the time, lunchroom rules were followed automatically. Children's observance and non-observance of rules was highlighted in interactions when things went wrong or when there was tension between children's behaviour and the system. Examples included frustration at being hurried to finish eating and receiving or anticipating reprimands for rule-breaking behaviour. Children took an active part in constructing the lunchroom system through discussion of rules and observance or non-observance of them. Rules could be child- as well as adult-initiated.

8c.2 Reproducing and constructing peer culture

During analysed episodes, the focus children and their mealtime groups engaged around a rich set of topics of interest and activities which were influenced both by culture beyond the school and by cultural elements in the more immediate school and lunchroom contexts.

In part, cultural activities were drawn from the wider world of pop and consumer culture. Activities included engaging in or talking about current crazes which sometimes involved buying related merchandise (e.g. Pokemon, Fidget Spinners) and there were examples of them recounting experience with on- and off-line versions of games related to the craze. There was also engagement in other less merchandise-focused crazes which were prevalent on social media at a given time (e.g. Bottle Throwing, The Mannequin Challenge and 'Dabbing'). These seemed to come and go fairly quickly over the course of the whole study with evidence of engagement in different crazes at different times. Engagement in social media was a subject interwoven into discussion of these crazes including in one conversation primarily about creating YouTube videos.

Subject matter and activities were also drawn from more enduring cultural phenomena such as talk about football (Boys Pair 2) and, particularly in School 1, the

playing of seated games, demonstrating the influence of traditional children's culture. These included a group clapping game (Girls Pair 1), several instances of 'Chinese Whispers' (Girls Pairs 1 and 2) and a game called 'Never have I ever....' (Boys Pair 1). There was also an instance of a game-like format where one child says, 'Put your hands up if...' (e.g. Girls Pair 2 Chloe says '*Put your hand up if someone's coming to yours for Cwismas!*'). The rest of the group then responds. This was seen a number of times in different schools over the course of the whole study.

It is unsurprising that food also featured in children's cultural lives during mealtimes. It was a jumping off point for dialogues described in Chapter 8b which involved joint exploration, practice and development of language use, humour, expression of preferences and of values. There was also an example of food being used as material for play during a food fight between two groups. Similarly, children responded to non-food related features of the immediate environment in the dining room such as material from teacher displays (e.g. Boys Pair 3 were responding to a display about the value of learning). In addition, they discussed issues of right and wrong including in relation to carnivorousism (Boys Pair 1), stealing (Boys Pair 2) and correct birthday present etiquette (Girls Pair 4).

There were indications that different mealtime groups had distinctive cultural interests which they engaged with collectively and sometimes on repeated occasions suggesting that the group accorded certain activities particular value. For example, Pokemon was a special interest for Gabe and Kieron (Boys Pair 1), Eddie and Lee (Boys Pair 2) and their group members who discussed or brought to the table various forms of the craze across several occasions. These included sorting and showing Pokemon cards, discussion about a lunchtime Pokemon club run by their teacher, about the online Pokemon game and about Pokemon characters more generally. By contrast, Monique (Girls Pair 3) derided Holly for singing a Pokemon related song. There may be some effects of stereotyped gender identity on such group-specific interests. For example, we see Eddie and Lee (Boys Pair 2), involved in an in-depth conversation about football and, in the 'Wearing the glasses game'

with Thea and Ana (Girls Pair 3), there is evidence of the girls' preoccupation with their own and others appearances.

8c.3 Sharing and interpreting of information about their joint or separate lives

The examples above indicate that expression and development of peer culture during mealtime was, in part, underpinned by experiences or issues which took place or were relevant beyond the lunchroom. Sharing of information also functioned to open windows into children's separate worlds by revealing aspects of their different lives and experiences. One example is when Girls Pair 3, Thea talks about plans for after school which reveal information about her family routines and circumstances. Having bought apple pie to school in her packed lunch, Girls Pair 4 Martha tells her group about her baking at home and her love of apple pie.

Sometimes sharing was about joint activities or events experienced or planned by two or more members of a group. For example, Boys Pair 2, Lee and Eddie are part of a humorous reminiscence about YouTube videos made by Remy which most of the group had watched; and Boys Pair 2 discussion of football not only involved a conversation about famous goals seen on TV but was preceded by talk about the teams that Lee, Freddy and Joey themselves play for out of school. Girls Pair 2, Monique discussed plans for a joint birthday party with Hope.

Children's interactions also focused on joint experiences outside the lunchroom but within school. This was evident in Ana (Girls Pair 3) talking to a companion about how they had helped their teacher by setting up their classroom ready for the afternoon; in the episode where Barney (Boys Pair 3) was teased for playing with a girl during a playground game; and where Boys Pair 2 and their group discuss the Pokemon club run by their teacher.

8c.4 Negotiating mealtime rules and organisation

Another set of interactions related to more functional aspects of the mealtime experience. Much of the time, rules and systems in the lunchroom were followed but remained in the background of social exchanges and went unremarked. Children sat at tables, left to collect their lunches, arrived back with them, cleared away and left in an automatic way.

By contrast, the system was foregrounded in children's talk when things went wrong or there was tension between children's behaviour and the system. In one example, Mimi (Girls Pair 3) is told by Karl that she has missed her call for lunch and immediately leaves the table for the serving area. In another, woven into the children's game of 'Chinese Whispers', Monique (Girls Pair 2) expresses frustration when they are told to hurry up and finish eating. At other times deliberate rule breaking brought the system into focus. Sometimes this was because behaviour led to an adult reaction such as deliberate pushing of a girl's chair by Eddie (Boys Pair 4) which invited a stern rebuke from a teacher. In another example, rules were highlighted when Ana's (Girls Pair 3) reassures her companions that Thandi will not be reprimanded for collecting bread for all of them.

Seating arrangements were a key element of the mealtime context and in all the schools in this study this meant organising themselves around tables and chairs. The social implications of apparently functional furniture were indicated in Chapter 8b in examples of dramatic tussles over seating. In another example, Martha and Lydia (Girls Pair 4), discuss how two of their group angrily refused to sit with them because they broke the group's rules for fixed places at their table. This underlines the suggestion that children as much as adults were involved in constructing the mealtime context through discussion, enactment and contravention of their own as well as adult made rules.

Chapter 8d Drawing together findings from Phase 2 of the study and highlighting how they complement those from Phase 1

8d.1 Chapter overview and precis

In this sub-chapter, I draw together findings from Phase 2 of the study reported in sub-Chapters 8a, 8b and 8c. I also set out how the findings complement or extend the Phase 1 findings which were reported in Chapter 6. The findings are presented in relation to my research questions (RQs):

1. What is the nature of children's informal peer interaction during school mealtimes?

and

3. How are children's informal mealtime interactions with peers associated with their friendships and relationships with the wider peer group?

Precis of Phase 2 study findings in relation to those from Phase 1:

- **The nature (topics of talk and activities) of children's informal peer interaction during school mealtimes:** Phase 2 analysis of videos reinforced findings from Phase 1 by showing that children made many and varied aspects of their lives part of their school mealtime social experience. In both Phases, there was a clear influence of peer and wider culture on interactions (crazes, traditional games, social media, discussion with a moral dimension). In both phases, interactions were influenced by the mealtime micro-context (discussion of food, seat saving) as well as by experience in more distance contexts (playground and out of school).
- **The nature (relational processes) of children's informal peer interaction during school mealtimes:** Phase 1 observations indicated that children were frequently socially engaged with one another during mealtimes and that some mealtime interactions were overtly relational (e.g. group inclusion/exclusion of individuals via seat saving). Phase 2 analysis substantially extended these findings by

identifying 15 relational processes embedded in mealtime interactions, providing deeper insight into the multiple ways children engaged with one another.

- **Peer relationships within mealtime groups:** Phase 2 sociograms confirmed Phase 1 findings that children largely spent mealtimes in single year group and gender groups but that there was a greater degree of mixing between children from different Year 5 classes. The sociograms extended Phase 1 findings by demonstrating the interplay of friendship and wider group relationships in mealtime groups (*Best friendships*, best friendship networks, children with best friends who were mainly but not always *Accepted* and children without best friends who were sometimes *Accepted* and sometimes *Poorly accepted*.)
- **How children's informal eating time interactions with peers are associated with their peer relationships:** Phase 1 analysis suggested that peer relationships (mainly *Peer acceptance*) were predictors of overall mealtime engagement. Phase 2 analysis extended this finding by using the sociograms to show how specific forms of relational interaction might reflect or feed into aspects of children's relationships (e.g. best friends drawing together through *Mutual responsiveness* or away through disregarding of one by the other; children in a weak social position improving their standing through being involved in *Mutually responsive* activities or being confirmed in their position through *Being marginalised or excluded*.)

8d.2 RQ1: What is the nature of children's informal peer interaction during school mealtimes?

Phase 2 findings both validated and extended those from Phase 1 in addressing my question about the nature of mealtime interactions.

8d.2.1 Topics of talk and activities: peer culture, joint and personal lives, the mealtime context as material for children's mealtime interaction with peers

Findings from Chapter 8c focused on a wide variety of interests, concerns, values, rules and activities. This reinforces qualitative findings from Phase 1 of the study (see 6.2.3.4) where observations of 105 children were made at a distance over a number

of weeks. Evidence of Phase 2 talk topics and activities came from videos of selected children over a few days. Recurrence of talk topics and activity types across the two phases indicate validity of Phase 2 findings presented here.

There was some overlap in specific interaction content across both phases such as playing Chinese Whispers, 'Pokemon', 'dabbing' and talk about football. Some specific content was only observed in one: for example, the discussions of carnivorousism and home-baking in Phase 2; the discussion of gender-neutral pronouns and playing of rock-paper scissors in Phase 1. However, in both phases, interactions were partly influenced by the mealtime context itself (e.g. seat saving and discussion of food) and, in both, interactions also involved material related to contexts which were more physically distant (e.g. discussion of playground activity or of out of school experiences such as plans for Halloween or reminiscence about time spent at one another's houses). In both types of observation, the influence of peer and wider cultural activities and values – e.g. game-playing, discussions with a moral dimension, talk about social media and computer games – was also clear. There was, therefore, continuity in findings across both phases of the study firmly demonstrating that informal school mealtimes provided the opportunity for children to make many and varied aspects of their lives part of their school social experience.

8d.2.2 Relational processes embedded in mealtime interactions

Phase 2 findings presented in Chapter 8b also substantially extended those from Phase 1 about the nature of mealtime interactions. Phase 1 qualitative observations indicated some elements of interactions which were overtly relational (e.g. group inclusion/exclusion of individuals via seat saving). Phase 2 use of video-footage and Grounded Theory analysis provided insight into 15 relational processes which were embedded within the interactional content just described and which were not apparent from the at-a-distance systematic observations.

The analysis indicated that varied relational processes were enacted by children during these relatively short episodes of everyday socialising. I categorised processes into those where children appeared to be coming together (*Moving towards*) or away (*Moving away*) from one another. A key feature of my conceptualisation of the

processes was that this overall relational effect depended not on a single individual but on the social actions of the different actors involved. Straightforwardly *Moving towards* depended on both actors doing so, for example through being *Mutually responsive* or by one child accepting and responding positively to an individual who put themselves forward to organise an activity or to deliver information (labelled *Asserting the self meets acceptance*). Straightforwardly *Moving away* also depended on the contribution of both actors to this outcome. For example, if one child acted to *Marginalise* another, the other child would have to acquiesce for example by withdrawing or leaving. I termed these processes '*symmetrical*'.

The situation was complicated if one child resisted the direction of movement of another. For example, one child might resist the moves of another to denigrate them by continuing to participate and by countering belittling remarks (*Targeting meets resistance*); one child might make overtures of friendship to another which are not reciprocated (*Rejecting or resisting affiliation*). The relational outcome here involved one side fending off the move of the other and depended on some degree of interactional struggle. I termed these processes *asymmetrical*.

Phase 1 of the study had indicated that children were socially engaged with one another in almost three quarters of systematic observations. As shown above, these Phase 2 findings provide deeper insight into some of the multiple ways that children engaged with one another. This qualitative analysis could not provide evidence of mesotime patterns and prevalence of these interaction types for the individuals involved. However, by providing a window into the relational tendencies of children's interactions in this context, I showed that the mealtime was indeed a significant site for the expression and enactment of children's peer relationship.

8d.3 RQ3: How are children's informal eating time interactions with peers associated with their friendships and relationships with the wider peer group?

Phase 2 findings also extended those from Phase 1 by further examining the peer relationships between the children who formed the immediate social context for

mealtime interactions (i.e. those within their mealtime peer groups); and then by examining connections between relational processes and relationships of mealtime group members who had been directly involved in interactions with one another.

8d.3.1 Peer relationships within mealtime groups

As already suggested by Phase 1 analysis, sociograms depicting mealtime groups showed that they were very largely single year group and single gender. In School 2, where there were two Year 5 classes, the groups varied in the extent to which they comprised of a mix of children from both classes.

In addition, Phase 2 sociograms demonstrated that mealtime groups were likely to involve an interplay of friendship and wider group relationships. All but two of 56 *Best friendship* pairs were members of the same mealtime group and 42 pairs were part of the same core who sat together most frequently. But these groups and especially their cores contained chains or enclosed clusters of best friends such that these children were likely to be socialising not only with best friends but with best friends of best friends. There was a 70% overlap of children with a *Best friendship* and those who were *Accepted* or *Highly accepted* by the group as a whole.

However, this meant that 30% of those within *Best friendship* networks or cores were *Poorly accepted* by other group members. Twenty-one percent of children who had no *Best friendships* were also members of mealtime groups (eight were core members). In some cases, these children outside the best friendship networks were *Accepted* or even *Highly accepted* by the group as a whole; in others they were *Poorly* or *Very poorly accepted*.

8d.3.2 Connections between mealtime relational processes and children's peer relationships within their mealtime groups

Phase 1 analysis suggested that children's peer relationships (*Peer acceptance* more than dimensions of *Best friendship*) were a substantial predictor of overall mealtime social engagement. Phase 2 analysis extended this correlational finding by using the sociograms alongside analysis of the relational processes to examine how specific

forms of relational interaction might reflect or feed into aspects of the peer relationships which existed between those involved in particular interactions.

Some relational processes were relevant to relationships between individuals and were congruent with what we might expect from children with those relationships. For example, there were cases of *Mutual responsiveness*, *Affirmation* and *Helping* between best friends which served to keep them close to one another. And there were examples of more difficult interactions between non-best friends such as *Effortful tuning* (one party withdraws from engagement with the other, but the other nevertheless works hard to engage them).

However, there were also examples of behaviour which seemed incongruent with the relationships involved. For example, *Mutual responsiveness* and *Affirming* between non-best friends may have indicated past or emerging friendships. There were also several examples of individuals *Denigrating* or *Disregarding* a best friend. This could have been an expression of a poor-quality friendship or a sign of declining friendship. It also seemed likely that wider group relationships were an influence on such friendship-incongruent behaviour. For example, children who targeted their best friend, as well as those who resisted such targeting, tended to have overall mixed/strong social positions (e.g. *Accepted with Best friendships*). This position might be the result of a child focusing on the wider group when interacting, for example when 'performing' to the group at the expense of a best friend. Or they might be willing to engage in such behaviour because they could rely on back up in a high stakes interaction such as when group members collaborated with someone who was *Targeting* a child, or when someone received support from others during an episode where they were *Being targeted*.

Mealtimes also offered the opportunity for children in weak social positions (e.g. *Poorly accepted with no Best friendships*) within groups to participate in social life with their peers and potentially to strengthen their relationships. There were occasions when they engaged in positive *Mutually responsive* interactions with other group members. However, the observations highlighted how a child's weak social position in a group could be played out and reinforced during mealtimes. This

typically involved group members in a strong social position initiating moves to marginalise or expel an individual in a weak position; they either encouraged others to join in or others were complicit, adding power to the process. This type of event gave a sense of cohesion among group members who were on the side of the targeter: inclusion and exclusion went hand in hand.

I use this notion of group cohesion to describe another type of relationship between all the individuals who were members of the group. It was distinct from *Best friendship* or *Peer acceptance* which are based on subjective feelings of children about one another. Group cohesion was instead indicated by the frequency of mealtimes spent together by group members whether best friends or not, *Accepted* or *Poorly accepted*. Sometimes relational processes seemed to operate at a group level to express and strengthen this cohesion between all group members present regardless of their subjective relationships. For example, activities such as games or lively, energetic conversation could be involving for all of them; games could encourage mutual responsiveness of all of them; conversations led to exchanges of information which reinforced common knowledge and interests for all group members so equipping them to contribute to subsequent similar conversations.

Chapter 9 Discussion

9.1 Chapter overview and precis of points discussed

In this chapter, I first revisit the aims and rationale for the study. I discuss findings about

1. The nature of mealtime interactions observed (subject matter and relational processes) and their connection to peer relationships
2. The influence of the mealtime context on interactions and on mealtime group size and structures and
3. The potential contribution of mealtime social experience to children's adjustment.

I highlight strengths and limitations of this study and suggest areas for future research. Based on this discussion and my conclusions, I set out implications for school staff organising mealtimes. There I suggest that staff aim to provide an open mealtime setting with just enough adult support for all children to socialise successfully and independently enough that they can benefit from rich, engaging mealtime interactions with peers.

Precis of main areas of discussion:

- Despite constraints of the largely adult-controlled school mealtime, my findings indicate that these times did allow substantial informal social interaction between peers. Interactions included varied and engaging content and activities and discussion of wide-ranging aspects of children's lives inside and outside school. These were intertwined with relationally important interactions.
- Acceptance by the whole year group was a predictor of mealtime interaction measures; *Best friendships* and all but one friendship quality measure (friendship security) were not. However, social network analysis raises questions about the relevant peer group for mealtime interactions: context-

specific mealtime groups were single year group, single gender and focused around friendship networks with varying structures.

- Through close-up analysis of school mealtime video footage, I identified potential relational processes. These findings support the view of peer relations as complex and dynamic with everyday moment-by-moment interactions both expressing and feeding into relatively enduring peer relationships.
- There were indications that the school mealtime context influenced group size and structure. It facilitated conversational and sedentary interactions and, to some extent, the content of interactions (e.g. food-focused talk and play; seat saving). Other conversational topics and perhaps also relational processes were less tied to the mealtime setting.
- There was no evidence of a connection between mealtime interactions or peer relationships with school liking. But mealtimes did appear to provide social learning opportunities likely to support development of conversational social competence in a group setting. However, there was variation in the extent to which individuals took part in mealtime socialising and some were excluded from it or experienced difficult interactions which were potentially damaging for their well-being.

9.2 Revisiting the aim and rationale for the study

The overall aim of this study was to examine the value (or otherwise) of children's informal 'open' school mealtime experience for their peer relationships and adjustment to school. I set out to provide a window into these times in terms of the extent to which and ways that they are contexts for peer relations.

The research began with a concern that an 'open' (Schmuck & Schmuck, 2001) school mealtime setting, where children are largely free to sit with whom they want and talk about subjects of their choice, may be one context among a diminishing number where children can interact with one another face to face, relatively freely of adult control (Baines & Blatchford, 2019; Shaw et al., 2012). Yet there are recent examples of school mealtimes themselves being substantially structured by adults or of adults

limiting mealtime socialising with peers (e.g. Hart, 2016; Pike, 2010). This is despite the fact that, like other informal settings where children ‘hang out’ with friends and peers (Gill, 2007; Gray, 2015, Sluckin, 1981), school mealtimes may be important times for children’s peer relationships, associated well-being and social development. They are also valued by a large majority of children as time to spend with friends (Baines & Blatchford, 2019) and may offer particularly conversational opportunities which could make a distinct contribution to the development of peer relationships, to the development of socially competent behaviours needed to make and maintain them – considered here a form of adjustment - and to other associated aspects of children’s adjustment to school. However, there is little research on children’s social experience during school mealtimes or its significance for peer relationships. They have primarily been considered in relation to concerns about children’s nutrition, health and learning-related behaviours (e.g. Nelson et al., 2007; Sellen et al., 2018).

This study is one of a few which considers open school mealtime settings as potentially important contexts for children’s social lives. As far as I am aware, it is the only one to examine the connection between children’s informal school mealtime peer interactions and psychological measures of their peer relationships. By implication, it indicates what may be lost when mealtime interactions are constrained.

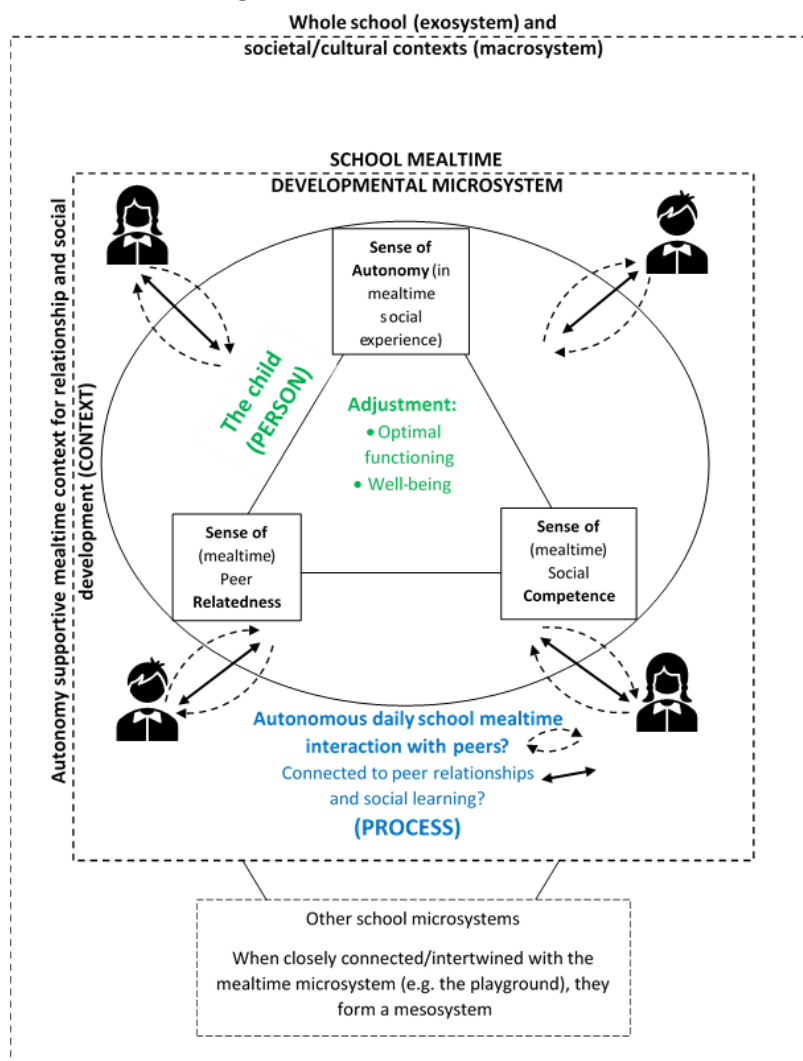
In this study, I followed approaches used by Blatchford and Baines in their playground research (Baines & Blatchford, 2009; Baines & Blatchford, 2011; Blatchford et al., 2003) combining psychological measures of peer relationships and observations of children’s naturalistic interactions. However, my work extends their methods by combining qualitative with systematic observations and is unique in applying these methods in the school mealtime setting. As discussed below, and like breaktime research, this work contributes to the field of peer relations research by examining the value of everyday, dynamic, context-specific social interaction and its value for peer relationships and adjustment to school.

In the following discussion, I refer back to elements of my theoretical framework (included again for ease of reference in Figure 9-1), based on Bioecological Theory

(Bronfenbrenner & Morris, 1998) and Self-Determination Theory (Deci & Ryan, 2014; Ryan & Deci, 2000). The framework indicates that:

1. Children’s autonomous interactions in the school mealtime context are likely to constitute proximal processes important for current and future relationships and for associated individual adjustment
2. These interactions will to some extent be constrained, facilitated and influenced by the school mealtime context
3. They may also overlap with interactions in other contexts
4. Mesotime methods are used to examine patterns of school mealtime interactions over days and weeks; microtime methods focus on detailed description of their functioning during episodes of proximal processes

Figure 9-1: Representation of the school mealtime developmental microsystem based on Bioecological and Self-Determination Theories



9.3 School mealtimes as children's social spaces

In this section I begin to discuss findings which relate to RQ1:

What is the nature of children's informal peer interaction during school mealtimes?

Here I focus particularly on the extent of mealtime socialising and on interaction topics of conversation and activities.

A small number of studies in England have focused substantially on school mealtimes as social contexts for children and young people (Daniel & Gustafsson 2010; Hart, 2016; Lalli, 2020; Pike 2008, 2010; Sellen et al., 2018). However, their emphasis has been on the impact of adult organisation of the mealtime system and space on children's socialising. Pike and Daniel and Gustafsson have made a strong critique, from a sociological perspective, of the ways in which policy and local practice can constrain children's freedom to interact with friends. Even in freer mealtime settings, they provide evidence of tension between the lunchroom system (seating, behaviour management, food collection, time limits) and children's desire to spend time socialising with friends. With this in mind, Daniel and Gustafsson (2010) have asked what it would look like if mealtimes were constructed as a children's space. This suggests not only that, given freedom to do so, children would organise the mealtime differently. It also raises the possibility that they may currently have little autonomy to engage in socialising implicated in the development of peer relationships.

However, even within lunchroom constraints, observations from my study provide strong evidence that open school mealtimes do already contain important children's spaces for their socialising with peers. In the settings I studied, children could largely choose who to sit with and how to interact relatively freely of adult control. Adults were present (interacting with the child, group or simply nearby) in only 5.5% of observations). In almost three quarters, children were socially engaged with peers (actively interacting or attending to others' interactions) and in over 60% they were actively interacting. Children combined this social/active engagement with eating in about half of observations. Therefore, even though children were eating in 60% of observations overall, children's school mealtimes in this study appeared to be at least as much about their socialising as their eating. There were no gender differences in

these patterns. This is in line with the importance children place on sitting with friends during school mealtimes (Baines & MacIntyre, 2019a).

Of course, these broad findings about the extent of social and active engagement do not say anything about the type or quality of these interactions. It is possible that they were so rushed or mundane as to be devoid of proximal processes which will drive the development of children's peer relationships and associated social development. However, my qualitative findings suggest quite the opposite. School mealtimes appeared to be engaging times for children to participate in peer culture whereby children readily took part in a wide-ranging and engaging set of *'....activities...artifacts, values, and concerns that children produce and share in interaction with peers.'* (Corsaro, 2018, p.128). Interactions focused on and reflected varied aspects of their lives including and beyond the mealtime itself (wider cultural phenomena such as crazes, games, issues of interest; discussion of home and out of school activity contexts; and of food, the lunchroom, the mealtime system and experience in other school contexts).

An important reason that such engagement in activities or conversations of interest should not be treated as trivial is that it is intertwined with the development and maintenance of peer relationships (Corsaro, 2018). This relational dimension was apparent even in mealtime behaviours observed during the more 'at a distance' Phase 1 systematic observations. Examples were seat saving and food sharing which I observed across all four schools. Seat saving involved children reserving seating for favoured peers and/or refusing it to others. Food sharing might be gifting of food to a favoured other. Or it could involve negotiations around food when one child asked/begged for or sought to trade for a desirable item (often packed lunch crisps or treats) and the other shared or refused.

These same mealtime-specific phenomena have been well documented and identified as relationally important by lunchroom ethnographers outside the UK. Thorne (2005) and Nukaga (2008) have described valued foods as relational currency and, according to Thorne, granting and refusing to share desirable foods was, used *'to maneuver and mark lines of friendship, distance, enmity and desire'* p.80. In their three year ethnography of adolescent social lives in a US middle school cafeteria,

Eder, Evans and Parker (1995) note seat saving as a means of deliberately including and excluding certain children from a mealtime group and that seating groups become increasingly status (as well as class and gender) based and fixed as children progressed through the Grades (7-9 – 10 to 14 years). However, in these sociological studies, status, friendship and enmity form part of the explanation of processes of reproduction of gender, class and ethnicity via mealtime interactions. In this study, the connection between such interactions and peer relationships was my primary focus.

9.4 Peer relations in the school mealtime context 1: The extent of connection between peer relationships and mealtime interactions

To extend understanding of the relational significance of school mealtimes and to do so in the UK context, I next discuss findings relating to RQ2:

To what extent are children’s informal mealtime interactions with peers associated with their friendships and relationships with the wider peer group?

9.4.1 Broad quantitative evidence of a connection between peer relationships and mealtime interactions

In line with the proposition that everyday mealtime interactions were connected to peer relationships, a main finding from Phase 1 of this study was that there was indeed a significant association between them. In the final regression models, where the interaction measure was the extent of a child’s social engagement (i.e. they could be actively interacting or attending to others’ interactions), peer relationships accounted for 25% of the variance in mealtime interactions. Where the interaction variable was extent of engagement in ‘talk exchange’ (i.e. balanced, to-and-fro conversation), peer relationships accounted for 17% of mealtime interactions. These figures leave open the question of whether different aspects of peer relationships (friendships, wider group relationships, a combination) were more or less related to these categories of mealtime interaction.

9.4.2 Peer acceptance as a stronger predictor of mealtime interactions than friendship

Parker et al. (2015) and Gifford-Smith and Brownell (2003) have noted that in everyday life there is likely to be a complex interplay of relationships such that groups constitute a broader social context for friendships which is likely to influence those friendships in both positive and negative ways. They also note that this interplay has been under-researched. And there has been criticism of the psychological field of peer relations for presenting a unidimensional and overly static picture of children's social experience (Blatchford et al., 2016; Hartup, 1996; Parker et al., 2015). In Phase 1 of this study, part of my response to this critique was to use a combination of measures of peer relationships to reflect their multidimensional nature: number of best friendships (Berndt & McCandless, 2011), friendship quality (perceived friendship closeness, security, conflict; perceived helpfulness (Bukowski et al., 1994) and Boastfulness of best friends), peer acceptance and rejection by year group (A. H. N. Cillessen, 2011). Another part of my response was at the very heart of my study: examining the connection between these relationships and dynamic everyday interactions.

Given the expected interplay of different facets of peer relationships, I predicted that both best friendship (quality more than number per se) and acceptance/rejection by the peer group would be predictors of mealtime interactions. I also expected that the predictive strength of friendship measures would be reduced once peer group measures were introduced. In fact, I found that peer acceptance and, to a lesser extent, peer rejection did predict the two measures of mealtime interaction. But, by contrast, differences in number of best friends did not predict either measure. Moreover, once the wider peer group relationships were taken into account, neither did most dimensions of friendship quality.

At first glance, the findings may be taken to indicate that peer group relationships have a predominant influence on mealtime interactions largely subsuming any impact of friendships. This would be in line with Parker et al.'s (2015) description of the peer group as an influential social context which can impact on friendship

relations. Since the findings are correlational, they do not provide strong evidence of a causal mechanism for the association. Yet it is entirely plausible that there is one. Collective attitudes to or feelings about a child (the basis of measures of Peer Acceptance and Rejection) may reflect behavioural tendencies of that child, as suggested by much peer relations research (e.g. see Newcomb, Bukowski, & Pattee, 1993). In addition, peer group behaviours associated with those attitudes or feelings (e.g. friendliness or hostility) may encourage or inhibit that child's day-to-day mealtime interactions. This kind of mechanism is evident in descriptions from Huuki et al. (2010) where use of affiliative and aggressive humour by high status boys received admiration and recognition but when used by low status boys was socially penalised or ignored. However, as discussed next, these correlational findings warrant further scrutiny.

9.4.2.1 Issues and findings relating to the relevant peer group

In relation to questions about which peer group is most relevant to mealtime interactions, the typically used measure of peer acceptance adopted in this study reflects attitudes of the whole year group to a child. It is quite possible that peer acceptance had originated outside the lunchroom during classroom time where individuals were perhaps more likely to be in contact with all members of their cohort. Howe (2010) has also argued that in the typical contemporary classroom, tight teacher control of interaction is likely to have an impact on how children regard one another. Classroom based, teacher-influenced peer group attitudes could then influence the whole year group and be spilling over into mealtime interactions.

On the other hand, Kindermann (2007; Kindermann & Skinner, 2012) has defined and identified the 'real' peer group as the informal child-chosen social network (based on peer reports of who 'hangs out with who' within but also outside the class including outside the school) as influential on children's behaviour (e.g. motivation) back in the classroom. And researchers of breaktime (e.g. Blatchford & Baines, 2010; Pellegrini & Holmes, 2006), out-of-school activities (e.g. Fredricks & Simpkins, 2013) and classroom peer relationships (Hallinan, 1976; 1979) emphasise the primary importance of direct relational experience with peers for relationships. As such, the

informal mealtime peer group and relationships within it seems most likely to provide the relevant social context for mealtime interactions.

Indeed, to the extent that peer relationships were connected to actual relational interactions during mealtimes, my findings showed that children were not socialising equally with all children in their year group. In theory, open school mealtimes provide opportunities for children to socialise widely within and even beyond their year group. However, I found that children rarely socialised outside their year group and that they were also only socialising with a subset of their Year 5 peers. In part this was the result of a gender divide already well-documented during mealtimes (Eder et al., 1995) and on the playground (Baines & Blatchford, 2009) as well as in peer relationships more generally (Maccoby, 2002). On average, children's seated mealtime groups were made up of a large proportion of own gender peers; and sociograms for the two Phase 2 schools showed that focus children's mealtime groups (the network of those who sat together frequently during mealtimes over the whole course of observations) were almost exclusively single gender. There was a less pronounced tendency in schools where there were two classes in a year group for children to mix with members of their own Year 5 class rather than a parallel class.

Future research should examine whether these specific, single year group, single gender mealtime peer groups influenced mealtime interactions separately to whole year group acceptance or rejection. Or it may be that acceptance within the mealtime group aligned with whole year group acceptance which was then played out in interactions within the group. If so, it could be that whole year group acceptance (perhaps established outside the lunchroom as Howe (2010) suggests) influenced acceptance by the mealtime group. Or it could be that acceptance by the mealtime peer group (likely influenced by mealtime interactions) influenced year group peer acceptance; or both.

9.4.2.2 The limited association between best friendship and mealtime interaction: Issues relating to relevant friends

'Security/transcending problems' (perception that a best friendship was strong enough to withstand negative relationship events) was the one (weak) friendship

predictor of social engagement level. There is already a small amount of evidence that this aspect of friendship is associated with lower depression for girls (Schmidt & Bagwell, 2007) and lower anxiety (Wood et al., 2017). Given interconnections between different aspects of adjustment (e.g. Reschly & Christenson, 2012), these lower levels of internalising behaviours could be expected to sit alongside greater confidence and willingness to socialise during mealtimes. Baines & Blatchford (2009) draw on Bowlby's (1988) concept of positive relationships as offering a secure base which enables children to explore the world. As such, it makes sense that a perception of secure best friendship may be connected to greater willingness to socialise. Schmidt and Bagwell and Wood et al. also suggested that there may be an impact of perception of friends as helpful on internalising behaviours but, if so, this was not reflected in mealtime interactions in this study.

Despite this limited evidence of the connection between best friendships and mealtime interactions, social network analysis showed that mealtime groups were certainly contexts for best friendships. All but two of the 56 best friendship pairs identified were members of the same mealtime group. This is a higher proportion than the overlap of friends and social networks reported by either Kindermann and Skinner (2012) in wider informal peer networks (52%) or by Baines and Blatchford (2009) in playground networks (80%). However, this finding is tentative since it only included those who were part of focus children's groups and so was based on data from only two schools.

My mealtime group sociograms also provide possible reasons for the finding of a limited association between best friendships and mealtime interactions. Firstly, they indicated some friendship relationship structures which add to the suggestion that friendships may not be straightforwardly dyadic (Blatchford et al., 2016), as traditionally conceptualised (Bagwell & Schmidt, 2011). All but two identified best friendships were part of a best friendship network of more than two children composed of their own best friends and also their best friends' best friends. Some qualities of friendship network relationships as a whole may have been more connected to the mealtime interactions than those of dyadic friendships. For

example, it could be that friendship network - rather than dyadic - closeness, helpfulness or tendency to conflict were more important.

Alternatively, individual non-best-friends within mealtime friendship networks may have nevertheless been counted as friends and may have been influential, diluting the connection between best friendships on mealtime interactions. And Kindermann & Skinner (2012) found that non-friends within a network, as well as friends, had an influence on children's subsequent classroom engagement. They have also questioned whether the connections between best friends and non-best-friends in a network are necessarily qualitatively different: the difference could be only a matter of strength of the tie. Both they and Baines and Blatchford (2009) also suggest that these less strongly tied individuals may be partners in emerging or declining best friendships (with the ties becoming stronger or looser).

In addition, and as with the wider peer group as a whole, it could also be that subsections of the friendship networks were more important for children's mealtime social experience than others. Unlike the usual method of establishing children's informal networks using child self reports of 'who hangs around with who' (e.g. Kindermann, 2007), use of aggregated systematic observations of companions (Baines & Blatchford, 2009) provides an objective context-specific method of establishing most frequent companions. Forty-two of the 54 best friendships in the same group were also members of mealtime group cores meaning that they sat with their core group companions most frequently during mealtimes. However, friendship network members were not all part of the same core: some friendship networks formed longer looser chains which spanned separate cores. Others formed enclosed clusters where each child might be linked by best friends to several others in a smaller group within a core. These sub-networks of best friends who sat together most frequently during mealtimes may have had a particular impact on mealtime interactions while others, linked across cores at the cluster or group level, may have had less.

9.5 Peer relations in the school mealtime context 2: How mealtime interactions are connected to peer relationships

In the last section, I discussed the extent of connection between children's friendships and wider peer relationships with mealtime interactions. It is important to note that this quantitative analysis shed light on the nature of mealtime peer relationships. It did not substantially address the quality of interactions which were associated with them. By contrast, and as with close-up analysis of video of family mealtimes (Bohanek et al., 2009 ; Fiese et al., 2006), my Phase 2 qualitative analysis of video footage added to the picture of open school mealtimes as a context providing rich opportunities for children to engage in relationship relevant experience. I identified 15 relational processes embedded in mealtime interactions. This analysis aligned with advice from Blatchford and Baines (2010) to understand peer relationship processes by studying children's participation in activities '*intimately connected with peer social relations*' (p.231).

In this section I return to RQ1:

What is the nature of children's informal peer interaction during school mealtimes?

I discuss some relational processes which appeared to be intertwined with the content of interactions (games, discussion topics, mealtime specific behaviours such as seat saving and food sharing already referred to above.) I also consider the connection of these processes and the peer relationships between mealtime interaction partners who enacted the process. As such, I also address RQ3:

How are children's informal mealtime interactions with peers associated with their friendships and relationships with the wider peer group?

9.5.1 Overarching features of mealtime relational processes: moving towards and moving away

I made two overarching classifications of mealtime relational processes which I identified in my video analysis. The first differentiated group processes which inclined children to move towards one another from those where they moved away. I suggest

that the former (e.g. when children made explicit affirmations of one another) have the potential to strengthen relationship bonds between them; and the latter (e.g. excluding another from the group) have the potential to weaken them. Implicit in this classification is the conceptualisation within my PPCT framework (see above 9.2 and Chapter 2) and other cyclical, dynamic models of peer relationships (Levinger & Levinger, 1986; Parker et al., 2015) of moment-by-moment mealtime interaction and relatively enduring peer relationship as separate but closely related phenomena influencing one another on an ongoing basis.

This distinction between interaction and relationship was highlighted in my findings by the fact that occurrences of social processes were sometimes but not always congruent with interactions which might be expected between individuals with a particular relationship. For example, there were instances where best friends Monique and Chloe engaged in lively, funny, creative *Mutually responsive* dialogues with one another (congruent). However, they also included very poorly accepted Erin in that dialogue (incongruent). And on other occasions, Monique is involved in *Targeting* Chloe or *Disregarding* Chloe's contribution and feelings (both incongruent).

My PPCT framework incorporates Bronfenbrenner's notion of developmental proximal processes (Bronfenbrenner & Morris, 1998) by suggesting that autonomous mealtime interactions with peers constitute proximal processes which are grounded in current relationships, implicated in the development of new or current peer relationships as well as involving social learning relevant for future relationships (see 9.7.3 below). However, Bronfenbrenner states that '*To be effective* [as a proximal process], *the interaction must occur on a fairly regular basis over extended periods of time*' (p.996). If part of an ongoing pattern of interaction, then I assume that enactment of congruent mealtime interactions would constitute proximal processes important for maintaining current relationships. Levinger and Levinger (1986) refer to the '*Continuation*' (p.128) phase of a close relationship as characterised by frequent and varied joint interactions as well as commitment.

If frequent, incongruent interactions might also constitute proximal processes but could have various relational meanings. First, the interactions may express particular

poor quality dimensions of a relationship (Bagwell & Bukowski, 2018; Hartup, 1996). Second, they may be part of a pattern of interaction which indicates a changing relationship: there may be an improving emergent relationship between Erin and the other girls; perhaps Monique and Chloe's best friendship is in a state of decline. Levinger and Levinger refer to '*Build-up of a friendship*' where proximity, engagement in shared activity, recognition of commonalities can underpin '*the move from mere acquaintance to the beginning of friendship*' (p.128); and a '*Deterioration*' (p.129) phase which may result from diverging interests, abilities or development. Third, as already discussed in relation to my Phase 1 finding, it may be that in a group setting such as the school mealtime, wider group relationships and interactions connected to them predominate over interactions that are relevant to dyadic friendships. Baines & Blatchford (2009) suggest that large playground networks were unlikely to support intimate behaviours such as disclosure of thoughts and feelings which may be associated with friendships. Perhaps, then, there were moments when Monique's preoccupation with the group in the mealtime context overrode her best friendship with Chloe.

9.5.2 Overarching features of mealtime relational processes: symmetry, asymmetry and the role of resistance

The dynamic quality of peer relations was further demonstrated by my classification of processes as symmetrical or asymmetrical. This reflected my observations that relational tendencies of an interaction were the results of both actions and reactions of different individuals involved. Specifically, this related to whether a relational 'move' was met with a reaction that affirmed, mirrored or acquiesced to that move; or with a reaction that involved resistance to the move.

Examples of the former which seemed likely to draw interaction participants closer together, were when Natalie is *Involving* the group in playing a clapping game and others respond by participating; or when Ana and Nancy engage in mutually *Affirming* their positive qualities which they say led their teacher to choosing them to set up the classroom science experiment. Examples of the former which seemed to incline the children to move apart were when Lee and Eddie are *Targeting* Vik to expel him

from the group and he gives way by leaving resulting in his physical exclusion from the group.

These contrasted with examples where a child resisted a relational move. Examples include Lee's *Effortful Tuning* when he keeps the conversation going in the face of Kieron's irritation and rebuttals after Lee comments on what Kieron is allowed to eat. The conversation shifts to become more upbeat and mutually responsive when they arrive at the topic of Carnivorism about which they agree. In this case, Lee's refusal to simply give up at a difficult stage of the conversation may have helped to maintain or strengthen bonds which might otherwise have been damaged. Resistance could also work in the opposite direction. For example, when Martha makes an '*Affiliating*' declaration of friendship, Lydia makes a minimal response which suggests a rebuff, particularly as it contrasts with the prior warmth of her declaration to Flo. Thus, rather than strengthening the relationship, the overture seemed likely to have increased relational distance between Martha and Lydia.

The notion that all partners play a part in the relational outcome of an interaction aligns with accounts of other qualitative peer relations researchers who have focused on the role of multiple players in the operation of social processes. For example, in Goodwin's (2006) ethnographic elementary school study of girls on the playground, Angela's low status is perpetuated by others' behaviour towards her (e.g. insults, unfair application of rules during games) at least as much as by her own behaviour. As such, my work contributes to the criticism (Blatchford et al., 2016; Hartup, 1996; Parker et al., 2015) of peer relations research that it neglects the operation of social processes through focusing on associations of global behaviour styles with measures of peer relationships.

In the remainder of section 9.5, I discuss some examples of the processes I identified which seemed likely to have different relational impacts.

9.5.3 Moving towards symmetrically: examples of *Being mutually responsive*

9.5.3.1 Synchrony between best friends

Despite the suggestion that the mealtime was primarily a setting where group relationships and interactions predominated, Phase 2 observations did provide examples of interaction between individuals which appeared to show them 'moving towards' one another, potentially strengthening their ties. I identified some of these as social processes involving pro-social behaviours (Bergin et al., 2003; Dirks et al., 2018) such as *Affiliating/Offering help or support* or *Affiliating/Explicit declarations and affirmations* which seemed quite overtly relational. By contrast, interactions which involved partners *Being mutually responsive* lacked explicit relational content. I nevertheless identified them as relational processes because they provided a powerful sense that those involved were moving towards one another.

This was evident when games and conversations took on a flowing energetic quality where children were highly attuned and responsive to one another, either physically or verbally, sometimes accompanied by much smiling and laughter. For example, Natalie breaking off from another conversation to spontaneously copy the singing and hand actions of her best friend Eliza such that the routine and the effortless falling in together of the pair amidst the group suggested both reflection and creation of intimacy between them.

Such examples of children being intensely *Mutually responsive* echo descriptions of coordinated interactions between infants and their caregivers. This phenomena has been termed 'Synchrony' and has been implicated in secure attachment relationships and positive developmental outcomes (Leclère et al., 2014). Synchrony has also been studied in relation to children's interactions. For example, Tunçgenç & Cohen (2018) found that inducing physical synchrony using music with 4 to 6 year olds resulted in higher levels of mutual smiles and eye contact and of helping behaviour during a subsequent task compared to a non-synchronous control group. While the mechanisms at work are not clear, the authors suggest that synchrony may have led children to perceive the other child as similar and this encouraged subsequent helping behaviours which have been associated with friendship quality (Poorthuis et

al. 2012). I suggest that the synchrony may have helped to initiate a relational bond which encouraged helping.

However, in discussing mother-child synchrony, Leclère et al. (2014) suggest that synchrony is more complex than the simple emulation that is induced in Tunçgenç & Cohen's (2018) experiment. They say that,

...the dynamic and reciprocal adaptation of the temporal structure of behaviors between interactive partners defining synchrony implies the following ...: (i) behaviors include verbal and non-verbal communicative and emotional behaviors (e.g., gestures, postures, facial displays, vocalizations, and gazes). (ii) Synchronous interactions entail coordination between partners and intermodality... Thus, synchrony differs from mirroring or the chameleon effect. Instead, synchrony describes the intricate 'dance' that occurs during short, intense, playful interactions; it builds on familiarity with the partner's behavioral repertoire and interaction rhythms; and it depicts the underlying temporal structure of highly aroused moments of interpersonal exchange that are clearly separated from the stream of daily life. (p.3)

This description also seems to well-represent the energised, multimodal, symbiotic *Mutually responsive* mealtime interactions which I observed. Baines & Blatchford (2009) note that intimacy between peers is unlikely within large groups. However, there is an implicit intimacy (as well as explicit enjoyment) in this style of interaction that may be less inhibited despite the public mealtime setting than overt forms such as sharing of feelings. Synchrony between peers would then be worth studying further as a potentially important bond-strengthening process which occurs naturally during school mealtimes and perhaps in other school settings. A more low key version of this phenomena is also suggested by examples where interactions were less energetic but nevertheless involved both partners who were attentive and responsive to one another (e.g. when Natalie attends to Mimi's account of her brother's birthday party and asks relevant questions – they are not best friends). Comparison of relational impact of more and less energetic synchrony could also be examined.

9.5.3.2 Group cohesion through joint involvement and developing homogeneity

An important reason for following Baines and Blatchford (2009) in using aggregated observations to identify mealtime specific groups, was that it avoided confounding group membership with peer relationships. (This was a possibility in more typically used global child reports of who usually hangs around together (e.g. Kindermann, 2007) where relationships or perceptions of relationships might influence children's judgements). As such, I define mealtime groups as contexts for relationships but as separate from them. However, this raises the question of what was tying the group members together: these ties must constitute some sort of relationship. One answer is that they were held together by already noted friendship networks which were a prominent feature of the groups. However, children who were not part of these friendship networks were also group members (and sometimes core group members). And some of these children were poorly accepted by the rest of the mealtime group. Therefore, there was a degree of mealtime group cohesion which resulted in ongoing connection between those who did not appear to have otherwise strong relationships with one another.

Group mealtime interactions suggest, if repeated over time, that they may be holding the group together through collective involvement which I have labelled '*Involving self and others in collective practising/development of activities or in talk about interests or attitudes*'. Corsaro (2018) notes how children repeat enjoyable types of play which can become a focus for their joint involvement; but that other modes of interaction, including conversation (e.g. of complex TV plots) can also be a focus for joint involvement. In this study, children both played whole group games (clapping, Chinese Whispers, Never have I ever), and engaged in playful activity (e.g. '*Wearing the glasses*' game), in creative dialogues already mentioned and in conversations about subjects of interest such as 'Pokemon'. As noted in my results, when these interactions took off, group members displayed high levels of involvement and/or energy.

Baines & Blatchford (2011; Blatchford & Baines, 2010) have described playground games as potential scaffolds for new friendships, supports for consolidation and

maintenance of current friendships and group relationships and as providing a superordinate goal which encourages integration of children in the context of joint activity. It seems likely that, along with playground games, mealtime games but also the mealtime conversations which I documented, could serve to support ties between all participating group members as well as relationships such as friendships between individuals within the group.

Indeed, a number of mechanisms seemed to be at work so that, as well as providing enjoyable engagements with other group members in the moment, these kinds of mealtime group interactions seemed likely to enhance ongoing group functioning by encouraging a cycle of future engagement. First, the kind of '*Mutually responsive synchrony*' already noted in interactions between individuals was also observed within some group level interactions and conversations. These included the group clapping game initiated by Natalie and the '*Wearing the glasses game*' in Ana and Thea's group which involved excited, playful interactions. While one-to-one 'synchrony' discussed above refers to coordination of interactions at a micro-level (see Leclère et al., 2014), the term 'social synchrony' has also been used by peer relations researchers to describe a broader process of developing group homogeneity which can partly account for commonly found similarity between group members (Farmer & Farmer, 1996 cited in Gifford-Smith & Brownell, 2003). It seemed that micro-level synchrony observed here may have been contributing to such homogeneity.

Second, Gifford-Smith & Brownell, 2003 state that the main mechanisms of influence among group members which account for homogeneity are reinforcement and imitation. The energy, mutual attention and enjoyment seen during mealtime group interactions seemed likely to encourage children's participation in the moment. It also seemed likely to act as reinforcement. Indeed, the power of positive verbal reinforcement by peers on children's future delinquent behaviour is shown by Dishion's work on deviancy training (Dishion et al., 1996). In the case of mealtime interactions, such reinforcement could encourage future participation and interest in that particular activity, conversational subject matter or more generally in group interactions. Mutual attention, discussion and agreement might also act to develop

and reinforce jointly held opinions or values. This kind of process was identified by Eder et al. (1995) during mealtime conversation among preadolescent children who were developing gender stereotypical attitudes. A possible example in this study is when Lee, Gabe and Kieron produce enthusiastic and dramatic reactions and extensions to one another's statements about the dangers of being a carnivore.

Third, children modelled how to take part enabling others to imitate but more than this they explained, directed and scaffolded children's participation in games. For example, Gabe explained and then demonstrated, along with Lee, how to play the game of '*Never have I ever*' to his group who then joined in with continued guidance from 'the experts' until the game took off; Natalie gave directions to others about playing a group clapping game but was also verbally and physically corrected by Mimi when she made errors in her hand placement as part of the game. Rather than simple imitation mentioned by Gifford-Smith and Brownell (2003), these elements combine to constitute peer-led guided participation (Rogoff et al., 1995) whereby a more 'expert' child supports a 'novice' in learning cultural activity. Fourth, in other examples, such guidance was in the form of sharing culturally valued information. Howe (2010) notes that information exchange is a key mode of peer influence between children. For example, Eddie supplies information about the names of Pokemon characters and activities to others who are interested but less knowledgeable. Fifth, and finally, some individuals used ridicule and shaming to quash values or practices which they regarded as unfashionable (e.g. Dabbing) or unacceptable (e.g. boys playing with girls).

Eder et al. (1995) described how groups of different status and gender were characterised by different kinds of interaction. For example, high status boys engaged in high levels of verbal aggression and challenging, in line with the culturally endorsed 'sporting' behaviours which underpinned their status in the first place; medium high-status girls were concerned with popularity, engaged in gossip about appearance (the culturally valued criteria for their popularity) and behaviour of others and in funny storytelling about experiences. This study did not involve a substantial focus on differences in content and type of interaction between groups. However, there were

indications that groups did have group-specific interests: for example, Gabe, Kieron, Lee and Eddie's group returned to the subject of Pokemon several times and talked about playing it in several forms (an online game and Pokemon Go, at their class Pokemon club, swapping cards.) In a different group, Monique ridiculed Holly when she sang the Pokemon Go song.

To summarise, development of understanding about, enthusiasm for and/or adherence to group valued interests as well as common values and norms for behaviour – i.e. group homogeneity (Gifford-Smith & Brownell, 2003) - was potentially encouraged by mechanisms such as micro-level synchrony, reinforcement and guided participation during these everyday mealtimes. Such group-specific social learning seemed likely to equip children to function successfully in their own groups more than others and to continue to do so as interests and interactional styles evolve over time. If repeated, joint involvement during mealtime interactions may then facilitate an ongoing ability to participate which may support existing and emerging friendships and encourage group acceptance. It may also provide good enough social know-how or currency for those in a weak social position (poorly accepted, with no or poorly accepted best friends) to remain tied to the group. However, it should also be noted that one context for joint involvement of a subsection of group members, sometimes all but one child, was when they engaged in coordinated action to undermine the remaining group member or even to expel them from the group. Some children's ties to a group may then be more precarious than others.

I now turn to discuss instances where individuals or groups of children move apart or are forced to move apart from others.

9.5.4 Moving apart asymmetrically or symmetrically: examples of resisting or giving way to significant social threat

Both school mealtime and playground researchers (Blatchford, 1998; Eder et al., 1995) have identified teasing as an ubiquitous part of children's informal social lives in schools and noted that it takes different forms. In some cases, it can be affiliative and in others it can be hurtful and emotionally harmful to the recipient. There was

similar variation in this study. *Affiliative teasing* elicited smiles and laughter on both sides, did not go too far and did not last too long. It could be described as a verbal equivalent of enjoyable rough and tumble play (Boulton, 1994). This contrasted with several examples of unpleasant teasing of an individual by a group of children and where the target's best friend played a leading role. As such, once again, the best friend seemed more preoccupied with the group activity than their friendship. The sense of unpleasantness came from the coordinated efforts by a group against an individual, its persistence and, sometimes, its overt cruelty. One example is the extended period of teasing of Chloe by Monique and others during their game of Chinese Whispers. Another is when Thea repeatedly mimicked Ana's voice to try and get laughs from others (Ana is not laughing). Eder et al. identify 'Insult routines' as one form of mealtime verbal aggression used by dominant boys to show off their skill and to subjugate others. There was a similar air of showing off and denigration in Ana's treatment of her friend.

Several examples of moving away by forcing individuals out of groups - *Targeting to expel* - had an even more aggressive and hostile air because they involved overt, angry declarations that there was a desire to replace the target with a preferred child and no pretence that this was a bit of fun. The process also ended with a physical departure from the table which was a highly salient sign of rejection and, therefore, humiliating. These examples of *Targeting to expel* contrast with those of targeting and denigrating best friends which I have labelled '*Targeting meets resistance.*'

As this difference in labelling suggests, in the first set of examples the targets were able to resist aggressive moving apart successfully in the sense that, unlike those who were expelled, the aggression passed and they remained in the group (i.e. the moving apart was asymmetrical). Dirks et al. (2018) have noted that resistance to unreasonable behaviour is one form of socially skilled behaviour. Based on interviews with young people, Blatchford (1998) mentioned retaliation, ignoring or telling the teacher as responses to breacktime teasing. In fact, the observations in my study suggested an effective defence was made up of multiple elements which the target used as part of prolonged resistance to prolonged 'attack'. This included 'retaliation' in the form of teasing the attacker back but also a range of other reactions which do

not wholly sit under the label of 'ignoring'. These were: not rising to the bait and, instead, laughing along; using humour to sidestep the teasing; deliberately misunderstanding; demonstrating intimacy with others in the group; continuing to participate; and responding to cruelty with compliments. In these cases, the targets also had strong social standing in their groups (accepted with accepted best friends) and, in line with this, there were moments when they received support from one or more friends. These various types of resistance indicate a degree of complexity in this self-defence. Perhaps crucially, the targets retained their composure.

It was not, in fact, the case that individuals put up no resistance to the more extreme '*Targeting to expel*': the victim challenged the right of others to make them leave but the targeters kept up pressure and worked jointly with other children in the group. In these examples, the targets were very poorly accepted, without best friends and went unsupported by others. Ultimately resistance failed: the child gave way to pressure, departing in a state of upset. Eder et al. (1995) observed that one way in which boys,

'could win an insult exchange was by getting the other boy to lose his cool. Since being in control of one's emotions is an important aspect of toughness, becoming angry or upset by a peer's insult is a violation of the developing masculine norm.' p.74

In this study, both girls and a boy were provoked to lose their cool through *Targeting* and then disparaged for it. It is because of this final, albeit unwilling, giving way to the moving apart that I have categorised this kind of process as symmetrical. Actions of the targeters forced the move, but had the target been able to resist more persistently, as in examples of *Targeting meets resistance*, the targeters may have given up without such damage (exclusion and additional disparagement) to the target which appeared to reinforce their already weak social standing and possibly their reputation as unreasonable and volatile.

Marginalising was a less extreme version of moving apart symmetrically but which also had the effect of reinforcing the social exclusion of children who were already in a weak social position. This might involve a disparagement of that child's contribution

(such as Monique and Chloe's glance when Holly contributes to their conversation or laughter at what she has said; or the collective refusal by Lee, Gabe and Kieron to let Remy continue to take turns in the game of 'Never have I ever'). The symmetry in these examples stems from the fact that there is little or no protest by the child who is dismissed so that they acquiesce to being placed in a role of non-participant. It must be emphasised that, in these cases, the notion of symmetry does not imply that the children - whether by *Targeting to expel* or *Marginalising* - wanted to be excluded. Rather that their reactions seem likely to have contributed to the final moving apart outcome which they did not effectively counteract. This social vulnerability may also indicate that, even though these children were members of mealtime groups in terms of having a regular seat at the table, they did not enjoy the same ties that others did who were part of friendship networks or even those who did not have best friendships but were nevertheless accepted.

9.6 School mealtimes as contexts for peer relationships

In the previous sections of this chapter, I have addressed my research questions about the nature of children's mealtime interactions with peers and about the extent and mechanisms of connection between these interactions and peer relationships. This discussion has illustrated the plentiful interactions with potential relevance for peer relationships which I observed in these open mealtime settings. Phase 1 provided broad quantitative evidence of frequent socialising and of a connection between peer relationships – especially peer acceptance - and extent of interaction. Phase 2 provided evidence of varied mealtime interactions which may constitute proximal relational processes of kinds already identified by other researchers as significant for relationships. My analysis suggested how they might be connected to mealtime specific peer relationships. Both phases indicated that mealtime interactions are intertwined with an array of conversation and activity related to peer and wider culture and to various aspects of children's lives in and out of school.

This complexity mirrors family mealtime researchers description of relatively brief mealtimes as '*densely packed*'(p.85) and '*multi-layered*' (p.87, Fiese, Foley, & Spagnola, 2006) and as 'cultural sites for the production of '*sociality, morality and*

local understanding of the world' (p.35, Ochs & Shohet, 2006). The findings also lead me back to the issue of whether this socialising is specific to the open mealtime context. Statement 2 of my theoretical framework (see 9.2 above and Chapter 2) states

The interactions which constitute these developmental processes will take place in a free mealtime social space which is constrained, facilitated and influenced by the school mealtime context such that they can only be fully understood by studying them in that context.

One criticism of family mealtime research has been that patterns and types of family interaction identified within mealtimes and associated with adjustment and relationship outcomes, may reflect behaviours across a variety of contexts so that they may not be evidence of the significance of mealtimes in particular (Musick & Meier, 2012; Offer, 2013; Pike & Leahy 2016). School mealtime socialising with peers could also simply reflect their socialising with peers more generally. However, as discussed next, my study does provide indications that peer relational features of school mealtimes (mealtime groups and interactions) are to at least some degree tied to the mealtime context likely to make it a distinctive school '*microsystem*' (Bronfenbrenner & Morris, 1998).

9.6.1 Influence of mealtimes on broad patterns of interaction, group size and structure

As noted above, overall, the mealtimes involved children in high levels of active interaction with peers and social engagement. This comprised very largely of talk-focused, sedentary interaction. And this contrasts with the playground where systematic observation has shown relatively low levels of '*just talking*' and high levels of '*playing*' and '*game playing*' (Baines & Blatchford, 2011; Blatchford, Baines, & Pellegrini, 2003). It seems likely that, as suggested by Golding & Blatchford (in preparation) in their study of older students, that some of the constraints of the lunchroom encourage a higher level of '*socialising*' compared to the playground and corridors. They suggest that constraints of the system in the form of table and chair arrangements resulted in their observation of larger groups than in other school

settings (playground and corridors) and that sitting in such groups may encourage the high levels of interaction that I also observed amongst Year 5 children.

It was certainly the case in this study that children rarely sat alone. Phase 2 sociograms suggest that, when mealtime groups are defined as those who sat together frequently across observations and mealtimes, group size (8 to 17 children) was larger than the playground networks identified by Baines & Blatchford (2009). My study only looked at the six groups of which the Phase 2 focus children were members. However, the larger mealtime groups may indicate that smaller playground groups joined together around tables to talk and eat. This would align with the indications already discussed of the mealtime providing a social context which may be more important for group rather than one-to-one relationships.

It is also interesting to note that all of the mealtime groups contained one or two larger cores of between 5 and 10 and an additional core or cluster of 2 children. Some of these dyads may have consisted of children who were 'spillovers' who regularly did not fit in at a larger table and so often had to eat together elsewhere instead. Reasons for membership of one of these pairs might vary: in some cases one or both were poorly accepted by the group as a whole; in others they were both accepted. In the latter case, they may have often deliberately chosen to sit elsewhere with a preferred other (the dyads were all best friends). A direct comparison of children's groups in different contexts would provide further insight into the influence of context on this kind of group structure.

9.6.2 Influence of mealtime on content of conversation and activity

In terms of content of conversations or activity, there was evidence that mealtimes provided circumstances and material around which children engaged with peers. This included observations from both phases of the study of food sharing and seat saving and, from Phase 2, of children pressuring others to leave the table. Conversations were also influenced by food (discussion of items of interest, games or imaginary play with food, humour focused on food) or by rules and organisation of the lunchroom. However, other conversations and sedentary activity may have been encouraged by the mealtime without being so closely tied to it. In this way, children were bringing

multiple aspects of their lives into their mealtime socialising. But the myriad topics of conversation documented in this study – plans for after school, baking at home, birthday parties and presents, classroom activities, ‘Pokemon’ – could equally have taken place in other informal contexts such as the playground.

As Statement 3 of my theoretical framework states:

...there may be strong connections and overlaps between the non-determined free socialising with peers which is allowed during mealtimes and in other contexts such as the playground (Context).

This does not mean that free socialising in these different contexts was the same. Given indications that breaktimes overall were less contexts for conversation, particularly for boys (Blatchford et al., 2003; Baines & Blatchford, 2011), many children were likely to be having more such conversation or playing sedentary games during mealtimes. In contrast to content of interactions, it may also be that relational processes embedded in those interactions are minimally tied to the mealtime and are very similar across informal school contexts where children have opportunities to engage extensively with peers. For example, diverse forms of more or less aggressive teasing and targeting, which I and others (Eder et al., 1995) have observed during mealtimes, have also been documented in the playground (Blatchford, 1998). However, the more conversational setting of the mealtime may also encourage particular forms of given processes described above. For example, the verbal form of synchrony (within flowing conversation) may be more prevalent during mealtimes and the more physical, large motor form (e.g. within handclapping) may be more present in the playground where children are more physically active. Cross-context comparison of such processes and differential associations with peer relationships remain to be tested.

9.6.3 An autonomy supportive context? Individual variation in school mealtime social engagement

I have so far discussed evidence from my study which shows that, overall, open school mealtimes encompass a rich social space for children which is alive with varied peer

relational interaction. As such, the school mealtime may be considered an autonomy supportive one which provides opportunities for children to *'enter, commit to, and persist at close relationships autonomously'* (Deci & Ryan, 2014, p.58). However, findings also indicate that there was substantial individual variation in mealtime social experience and, perhaps, that this was not an autonomy supportive environment for all children. Level of social engagement varied with some children tending to spend more time socialising and less eating while others spent less time socialising and more eating.

This could be the result of individual preference with some children choosing to socialise more than others and others preferring to focus on eating so that they could go outside to play. The lunchroom may simply be a less important social context for the latter group. This would be in line with survey findings from my previous study (Baines & MacIntyre, 2019a) showing that Year 5 children's levels of liking for time spent on the playground at lunchtime was slightly higher than liking for time spent sitting with others to eat lunch. And 70% of children reported that they sometimes or always ate their food quickly in order to get out and play.

On the other hand, a child may not be making a simple choice to socialise more or less during mealtimes. Some children may have withdrawn from interactions because they lacked social competence needed to put up resistance in the face of difficulty which I observed some individuals doing to negotiate difficult situations successfully. Examples of poorly accepted children being marginalised or excluded showed that possibilities for resistance were constrained by the behaviour of other children and a lack of social support. For such children, Self-Determination Theory (Deci & Ryan, 2014) indicates that the mealtime may be an autonomy unsupportive setting. As such, they may lack a sense of enjoyment of these times as well as access to possible social developmental benefits of open school mealtime socialising which I will discuss next.

9.7 School mealtimes as contexts for adjustment to school

In this section, I discuss the value of school mealtime social experience for current and future social functioning, addressing RQ4:

Are children’s informal mealtime interactions and peer relationships associated with their individual adjustment?

9.7.1 Revisiting the proposition that school mealtime social experience is important for current and future well-being and optimal functioning

As just discussed, it seems likely that the largely conversational, sedentary character of interactions, some of its content, and group size and structure are influenced by the mealtime context. As such, it is likely to provide social experience which is distinct to some extent from other school contexts like the playground. It also seems certain, that the high level of conversational relational engagement with peers which I observed during mealtimes will be much less in evidence in the constrained contemporary classroom (Howe, 2010; Hargreaves et al., 2021). My study, therefore, supports the argument from the start of this thesis that, overall, open school mealtimes as well as playgrounds, are likely to be valuable as sites for the enactment and development of peer relationships considered to be components of children’s well-being (Abdallah et al., 2014; The Children’s Society, 2018).

However, my study provided evidence of children engaging in varied kinds of relational interactions and having differing success in terms of how far they seemed likely to have strengthened or maintained relationships as opposed to weakening them. Drawing on Self-Determination Theory (Deci & Ryan, 2014 ; Ryan & Deci, 2000), my theoretical framework indicates that such success or failure with peers during mealtimes will contribute to or disrupt satisfaction of fundamental psychological needs for sense of relatedness and for sense of (social) competence. SDT says that satisfaction of these needs is a pre-requisite for wider well-being and optimal functioning. As such, I expected the mealtime social experience that I documented to have implications beyond enjoyment – or indeed lack of enjoyment – of time spent with peers in the here and now of a particular mealtime.

9.7.2 Lack of association between school mealtime interactions, peer relationships and school liking

In one respect, my study failed to provide support for this proposition. I examined the possibility that children's mealtime social experience with peers predicted their school liking. This is a measure of adjustment which Boulton et al. (2011) argue is likely to be closely tied to informal peer relationships and may in turn contribute to effective classroom learning behaviours. However, in this study there was little evidence that peer relationships or mealtime interactions were associated with measures of school liking.

This does not, however, mean that mealtime social experience had no relevance for children's adjustment beyond the mealtime. It is possible that the lack of an expected association between peer relationships and school liking, and between mealtime interactions (likely to be linked to those relationships) and school liking in this study was the result of the cross-sectional design of my study. As in Boulton et al.'s (2011) work, it may be that peer relationships (specifically peer acceptance) predict future school liking. Similarly, engagement in particular types of mealtime interactions may predict future school liking and, indeed, future peer relationships. My regression analyses took no account of the quality of mealtime interactions which varied widely as shown by my Phase 2 findings. Observational studies of family mealtimes (Bohanek et al., 2009; Fiese et al., 2006) found associations of specific types of mealtime interaction (e.g. clear parental communication, fathers requesting information about family narratives) with measures of children's internalising and externalising behaviours. It may be, for example, that specific symmetrical moving together behaviours such as conversational mealtime *Synchrony* would impact positively on school liking even though extent of mealtime interactions as measured in Phase 1 of my study did not.

9.7.3 School mealtime social experience as an opportunity for social learning and becoming socially well-adjusted

It is also important to consider that adjustment to school is a multidimensional concept (e.g. Birch & Ladd, 1996) and that school mealtime social experience may be

connected to dimensions other than school liking. One relevant dimension of adjustment is the degree to which a child can enact socially competent behaviour likely to maintain or strengthen peer relationships. I have shown in this study that mealtimes offer opportunities for children to engage in varied relational interactions, particularly in conversational form, which could be said to constitute such competence. Children were also observers of relational interactions. And there was evidence that they sometimes supported and shaped others' interactions (modelling, instructing, scaffolding, correcting, sharing information – see 9.5.3.2 above) in ways that allowed them to participate effectively. In this way, mealtime social experience also seemed to offer opportunities for social learning which could improve children's social competence i.e. to become socially well-adjusted.

Further study would be needed to establish whether relational interactions and learning of behaviours during mealtimes constitute developmental '*proximal processes*' by being repeated frequently over time (Bronfenbrenner & Morris, 1998) and impacting on future social functioning. However, Sluckin (1981) has noted that social learning through engaging in play and games on the playground may encourage development of social skills and understanding which are important for future social functioning. Mealtimes may offer opportunities to develop particularly conversational competences which may be valuable for these children who are close to adolescence when conversational interaction may become more prevalent beyond the mealtime (Blatchford & Baines, 2010). And this kind of social learning may be particularly powerful in the mealtime context. In relation to the playground, Blatchford and Baines argue that social freedom in such open settings makes for a particularly demanding (socially and cognitively) and also particularly motivating environment for children, making it a powerful site for such social learning. There may be an added power during school mealtimes where children are seated around a table close to the interaction and are perhaps less free to leave when peer interactions become challenging.

In addition, given that I found evidence that group social processes were to the fore during the mealtime, it may be that mealtimes provide opportunities for learning about how to function in a group. Peer relations theory suggests that in middle

childhood close friends can act as '*developmental wellsprings*' (p.2, Hartup, 1996; Sullivan, 1953). It may be that mealtime groups are similarly a rich and important driver of social development at this stage.

9.7.4 Individual variation in mealtime opportunities for positive social learning and becoming socially well-adjusted; and the need to support autonomous mealtime social experience

Finally, I return to the fact that children's mealtime social experience varied. Some interactions appeared to be positive and enjoyable. They may nevertheless have been challenging: for example, coordinating one's actions with others in a clapping game or taking turns in a humorous conversation may be complex. Others appeared to be difficult but may nevertheless provide opportunities for practising how to navigate difficult social situations: for example, successfully ignoring Lee's attempts to interrupt or undermine his talk about football goals may have enhanced Eddie's sense of social competence. However, those children who participated little during mealtimes may have missed out on social learning opportunities. And when children were excluded, disregarded or denigrated, were not able to resist and received no back up from peers, it is likely that their sense of social competence and relatedness was undermined with potential negative consequences for their well-being and subsequent social functioning. In other words, these varied experiences indicate that mealtimes contributed both positively and negatively to children's social adjustment.

With reference to the playground, Blatchford and Baines (2006) argue that such problematic interactions are not a good reason for imposing more adult control in informal school contexts. Rather they emphasise that it is important to address difficulties '*in the context of everyday peer interaction itself*' where children can

'learn from their own experiences mistakes and reflections...The difficulties... can be viewed positively in the sense that they can be the basis for discussion with pupils... within a moral framework provided by the school.' p.10

At the same time, this study highlights that 'actions' of both parties contribute to the outcomes of interactions. Sometimes children on one side of an interaction may so

constrain actions of others that the latter have little power to resolve problematic situations. Staff may then need to provide support – whether inside or outside the lunchroom, targeted at the individual or wider peer group - which helps those children to develop social competences and establish supportive peer relationships which can enable them to be socially autonomous during school mealtimes. This could offer the ideal situation of school mealtimes acting as positive social learning environments for all.

9.8 Strengths and limitations of the study

9.8.1 Mixed observation methods in the mealtime context

A main strength of this research lies in my use of observational methods to examine children's naturalistic, open school mealtime interactions with peers. Collectively, Phase 1 systematic observations and Phase 2 analysis of video recordings allowed me to collect a rich set of data about varied everyday interactions and to study their connection to peer relationships. This is in contrast to much peer relations research which has tested the connection between child or adult-reports of global behaviour and their peer relationships. And observations allowed me to focus reliably on mealtime specific interactions and groups which were key to my aim of understanding the value of the particular context for children's peer relations. As a result, findings add to school mealtime research where, particularly in the UK, there has been much emphasis on adult organisation of school mealtimes but little close-up focus on specific mealtime interactions between children and their significance for peer relationships. Based on my previous mealtime research (Baines & MacIntyre, 2019a), it seems impossible that children (e.g. through interview) would have been able to provide similar levels of detailed insight into fine-grained patterns and relational processes in their interactions. On the other hand, without children's perspectives on given interactions, I am likely to have lacked some understanding of their meaning to the children involved.

It should also be emphasised that, to a large extent, the strength of my approach lay in my use of mixed observation methods. Bronfenbrenner has made a distinction

between mesotime studies (focusing on patterns in interaction over days or weeks) and microtime studies (involving moment-by-moment scrutiny during episodes of proximal processes). My mesotime systematic observations were used to establish patterns of a number of broad, pre-defined types of interaction and sometimes its content for whole classes of Year 5 children over weeks of mealtimes; they also provided information about mealtime seating companions which could be analysed systematically to establish mealtime groups. They did not, in the end, provide substantial information about different qualities of interaction. My microtime Grounded Theory analysis allowed me to carry out a detailed, open-ended examination of mealtime talk and activity and of relational processes whereby children negotiated their relationships. This focused on the interactions of a number of different children in different mealtime groups but was only based on short, selected episodes from a few mealtimes for each pair. It provided a novel initial description of the kind and quality of mealtime interactions and how they might be connected to peer relationships. But it is unlikely to be complete and provides no information about the prevalence of identified interaction types which would be needed to establish if they constitute significant proximal processes. Combining the two approaches allowed me to create a more rounded picture of open mealtime socialising than either could alone.

Another important point is that my study only focused on open school mealtimes and so provided no direct comparison of children's peer relations in other school settings, limiting my conclusions about the distinct contribution of this type of mealtime context to children's social lives.

9.8.2 Psychological measures of peer relationships

Another key strength of this study was my use of psychological measures of peer relationships. This was important in several ways. Whereas some researchers have used children's interactions as indicators of peer relationships, they were here conceptualised and measured as subjectively experienced by children and as distinct from mealtime interactions. This meant I could examine the connection between them without conflating the two and could gain insights into the potential difference

in connection between several different relationship dimensions (best friendships and peer acceptance) and mealtime socialising. This went some way to reflecting the interplay of different aspects of peer relationships although some other important dimensions (e.g. perceived popularity) were not included. In addition, since mealtime group membership was determined separately by social network analysis of observations of seated groups, I could examine the relationships within the groups and be clear that (as may be the case with social networks identified via child reports) that relationships did not influence information about group membership.

9.8.3 Cross sectional design

There were several important further limitations of the study. One was the cross-sectional design which was a practical necessity given the number of tasks involved in the study. Nevertheless, a longitudinal design would have allowed more confidence in quantitative findings about the connection between mealtime interactions and peer relationships. I examined current interactions that I hypothesised would be a reflection of peer relationships established through accumulated past interactions. A longitudinal design would have allowed me to test if current mealtime interactions predicted subsequent peer relationships. It would also have allowed me to better examine the connection between mealtime interactions, peer relationships and school adjustment by looking at whether they predicted future rather than concurrent school liking.

9.8.4 Gender and cultural diversity

Finally, I did not substantially study the role of gender or cultural diversity in mealtime interactions and their connection with peer relationships. While there were indications from quantitative observations that there were no differences between boys and girls in overall patterns of interaction, I barely examined gender differences in quality of interactions in Phase 2 of the study. Eder et al.'s (1995) ethnographic study of mealtimes in a US middle school indicates that such differences are likely to be significant. Low percentages of children in my study schools who had English as a second language compared to the national average, also indicated a relative lack of

cultural diversity making it difficult to study differences and limiting the generalisability of findings to a more culturally mixed population.

9.9 Suggested areas for future research

This study indicates possible directions for future research of children's mealtime social lives focused on mealtime relational processes, mealtime peer groups, the role of context and implications for children's adjustment.

9.9.1 Mealtime relational processes

A key suggested focus for further study is mealtime relational processes. In particular, additional micro-level qualitative work could be used to examine the occurrence of mealtime interaction types during a larger number of mealtime episodes in a larger number of mealtime groups. Such work could be used to modify/elaborate on specific processes (e.g. *Synchrony*, *Resisting*) which I presented in this research or add additional processes to my initial set.

This closer specification of processes can be used to create new observation measures so that quantitative analyses can be used to examine whether such processes do in fact constitute developmentally significant proximal processes. In part, this would mean establishing whether given interaction types '*occur on a fairly regular basis over extended periods of time*' (Bronfenbrenner & Morris, 1998, p.996) during open school mealtimes. This could be done by using the kind of microtime quantitative analysis of mealtime videos used by some family mealtime researchers (Bohanek et al., 2009; Fiese et al., 2006). However, longitudinal designs would be needed to establish developmental implications of engagement in a given interaction type such as future relational competence, particular aspects of future peer relationships or other future adjustment outcomes (such as school liking used already in this study). Gender and cultural differences could also be examined.

Given concerns expressed in this study about children who were unable to put up resistance when undermined or excluded by others, it could also be valuable to test the impact of interventions focused on these individuals or on their mealtime groups.

These could aim to build the individual's social competence in specific areas and/or to bolster their peer relationships and support so that they could socialise on a more level playing field during mealtimes and potentially benefit more from developmentally important interactions.

9.9.2 Mealtime peer groups

Another focus for future study would be to examine context-specific mealtime peer groups and the structure of peer relationships within them across a larger number of groups. This would involve using the same methods adopted in this study (and by Baines & Blatchford (2009) on the playground): that is a combination of systematic observation, social network analysis and peer relationship measures. This could provide more reliable information on group characteristics (size of groups, their clusters and cores) and their connection with mealtime interactions (e.g. core relationships may influence children's mealtime interactions more than those of the wider mealtime group). Incorporating a longitudinal design could be used to examine stability and change in structures over time, for example, to examine whether highly accepted children with no best-friends are more likely to establish best friends within the group over time compared to those who are poorly accepted.

9.9.3 Context specificity and connection in children's peer relations

A third area of suggested research would be to make comparisons between relational processes and peer groups in the school mealtime with those in other school contexts, particularly the playground. This would provide more reliable evidence of the distinctive contribution of each context to children's social lives and their differences or similarities as developmental microsystems. For example, different relational processes may be prevalent in the mealtime compared to on the playground; playground and mealtime peer groups may have different structures with different implications for peer relationships. Schools may then need to consider the distinctive social value of each setting when organising their school days.

Finally, it could be useful to examine if intervention measures to promote inclusion of excluded children in the playground or in the classroom has transferred to their

relational experience during mealtimes (or vice versa). Indeed, such interventions might be delivered outside any specific setting in which case the school mealtime offers a valuable opportunity for studying transferability of new social skills or dynamics to an informal, real-life setting. Doing so on the playground is likely to be much harder given that children are often on the move.

9.10 Conclusions

9.10.1 Contribution of research approach to the study of school mealtime social experience and to the study of children's peer relations

The aim of this study was to examine the value or otherwise of children's informal open school mealtime experience for their peer relationships and adjustment to school. I began with a proposition that open school mealtimes, where children are largely free to sit with whom they want and talk about subjects of their choice, are likely to provide socially important opportunities for children to interact with one another relatively freely of adult control: a context for developing peer relationships and for learning how to do so. Its value should be considered in the wider context of children's social lives in the UK where opportunities to socialise freely, face to face with peers are diminishing. I have studied this mealtime social experience using a unique combination of mixed observation methods, social network analysis and psychological measures of peer relationships.

Using this approach has enabled me to make a significant contribution in two research areas. The first contribution is to research on school mealtimes where social dimensions of the lunchroom have been little studied, particularly in the UK; where UK research has been undertaken, the main focus has been on adult organisation of the mealtime space and system or of children's socialising. The second contribution is to the psychological field of peer relations which has been criticised for often portraying unidimensional peer relationships as a reflection of individual behavioural style. Instead, like breaktime research, this work provides insight into the connection between children's dynamic everyday contextualised interactions and their complex peer relationships.

9.10.2 School mealtimes as a rich, engaging context for peer relations and their study

I found that mealtimes were indeed sites for high levels of peer interaction as well as for eating. During this interaction children engaged in peer cultural activity and discussion of wide-ranging aspects of their lives. At the same time, there was evidence that they were simultaneously enacting and developing their peer relationships. Overall, the extent of individual social engagement was associated with wider group relationships rather than dyadic friendships such that mealtimes may be particularly important for social experience within a group. However, qualitative analysis indicated a range of specific relational processes operating within mealtime conversation and activity which may potentially connect mealtime interactions with both dyadic and mealtime group relationships. Relational impact of such processes appeared to depend on actions and reactions of those on both sides of the interactions. Evidence suggested that, to some degree, interaction style (sedentary, conversational) and content (food or seating focused) as well as structure of mealtime groups (core group size) may be influenced by the mealtime context. As such, time spent in that context may make some distinctive contribution to children's social experience.

My cross-sectional, single context design and the small-scale of my in-depth qualitative work mean that these are preliminary findings. They could be extended to examine specific relational processes in greater depth, their context specificity and to test their connection to peer relationships. Nevertheless, the study demonstrates the richness of the mealtime not only as a site for peer relations but for the study of peer relations in their natural, complex, contextualised forms.

9.10.3 Contexts for some children to learn conversational competences and become socially well-adjusted

My methods also limit what I can say about the impact of open mealtime social experience on children's wider adjustment (indeed, there was no evidence that it was associated with school liking) or whether specific types of relational interaction constitute proximal developmental processes. Findings do, however, show that these

mealtimes are contexts for relational experience where children can practice various conversational forms of interaction or competences and potentially learn about them through engagement with and observation of peers. Over time, such learning may contribute to children's social adjustment, helping them to develop or maintain relationships. On the other hand, findings also showed that mealtime social experience does not have the same value for all children. Some children participate less than others in mealtime interactions, sometimes because they are prevented by others from doing so, and some interactions seem likely to have negative implications for children's relationships, for their sense of social competence and so for their wider well-being. In these cases, mealtimes may be unimportant for or even undermine social adjustment.

9.10.4 Implications of the study for organisation of school mealtimes

As noted, there is more work to be done to examine the social dimensions of children's school mealtime experience but, nevertheless, there are indicative implications for adults organising school mealtimes which follow from my findings:

- It is important to hold in mind that open school mealtimes, like playgrounds, are contexts which can provide children with rich opportunities for forging and experiencing social relationships with peers and for learning about how to navigate them. This understanding should inform mealtime organisation as much as the nutritional concerns which have dominated UK school mealtime policy and guidance to date.
- Recognising the value of informal mealtime socialising implies there is a need to provide conditions to enable it. That means organising mealtimes so there is a reasonable amount of time for conversation and eating. It means creating a lunchroom layout and system which allows children a degree of freedom in choosing who to sit with and what to talk about. This is particularly important given that children often have little opportunity to interact freely with peers during class time and that playtimes have been getting shorter in recent years.
- Table and chair arrangements should be carefully considered. For example, eight person tables may have an influence on group structure with pairs of

children sometimes separated from a larger core or poorly accepted individuals expelled from a table with a limited number of seats. Flexibility in furniture arrangements may help to address this issue.

- Creating an open-school mealtime setting can allow children to freely negotiate and learn about positive and negative aspects of relationships within a group. This does not mean allowing a free-for-all: some children will have peer interactions which may negatively impact their relationships, social functioning and wider well-being. In an autonomy-supportive environment staff will need to intervene - but only when necessary – to help children in social difficulty so they become better equipped to socialise independently during mealtimes. This may mean addressing the roles played by different group members in creating problematic situations.
- Problems experienced by children are not always easy to detect. They may, for example, involve children quietly withdrawing or being excluded from interactions. Support systems need to be set up to address these challenging situations as well as those which are noisy and noticeable.
- Peer relations researchers also have a role to play here. Firstly, they could more fully describe mealtime social competences and forms of mealtime peer group support which are important for successful peer relationships. Secondly, by testing interventions focused on these areas, they could help specify the kind of support which can enable all children to socialise autonomously with peers and to benefit from distinctive social experience provided by the real world, open mealtime setting.

The thrust of this suggested approach is for adults to provide a scaffold or framework within which children socialise successfully and independently enough to benefit from rich, engaging mealtime interaction with peers. This contrasts with an approach to addressing problematic mealtime interactions between peers which limits opportunities for free socialising (seating plans, increased adult guidance, rushed or silent mealtimes). Instead, the intention is to provide the conditions for all children to be able to access valuable mealtime relational experience with potential benefits for their current and future social functioning and well-being.

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Appendices

Appendix 1: Section 8 of UCL Institute of Education Ethics Form addressing ethical issues related to this research

Section 8 Ethical issues

Are there particular features of the proposed work which may raise ethical concerns or add to the complexity of ethical decision making? If so, please outline how you will deal with these.

It is important that you demonstrate your awareness of potential risks or harm that may arise as a result of your research. You should then demonstrate that you have considered ways to minimise the likelihood and impact of each potential harm that you have identified. Please be as specific as possible in describing the ethical issues you will have to address. Please consider / address ALL issues that may apply.

Ethical concerns may include, but not be limited to, the following areas:

- | | |
|--|--|
| <ul style="list-style-type: none">- Methods- Sampling – maybe re choice of Y5- Recruitment- Gatekeepers- Informed consent- Potentially vulnerable participants- Safeguarding/child protection- Sensitive topics | <ul style="list-style-type: none">- International research- Risks to participants and/or researchers- Confidentiality/Anonymity- Disclosures/limits to confidentiality- Data storage and security both during and after the research (including transfer, sharing, encryption, protection)- Reporting- Dissemination and use of findings |
|--|--|

The fact that children are involved in this research and that their interactions will be observed and video recorded in a naturalistic setting are features of the proposed work which require particular consideration with respect to ethical decision making.

Children as participants

BPS ethics guidance (2014) notes that research with children is normally considered as involving more than minimal risk (p.13). Particularly careful planning will therefore be needed to avoid the risk of harm to participating children. This has guided planning in relation to issues of obtaining of informed and ongoing consent (as described in Section 3 above) and conduct of the research in a way which minimises the possibility of participant distress. Key features of the approach to be taken to safeguard my 9-10-year-old participants are as follows:

1. **Information:** A thorough process of informing both gatekeepers and potential participants will be undertaken at various points in the research and at a level appropriate to the understanding of those being addressed. This will include information letters sent to head teachers and parents and provided for any staff involved (see Attachments 4-7). Importantly it will involve taking care in talking to potential child participants to explain research in a way that they can understand. Long experience of working with children as a primary school teacher,

as a researcher – including on other school lunchtime research – and as a mother means that I am able to communicate effectively with children of this age. Part of the approach will be to break down what is involved in the study by giving an overview of the whole study at the outset but to provide more specific information about what will be involved a week or so before each new research activity is undertaken as well as at the start of any activity which involves my interaction with the children (questionnaire, videoing, interview). Children will always be given a chance to ask questions and I will always let them know that they can come back at any point to ask me further questions directly or via school staff.

- 2. Informed Consent and Assent:** In the first instance consent will be sought from gatekeepers i.e. school staff and parents of children involved in the study class so that these adults can make the decision about whether children should be allowed to participate. Parents will be asked for opt-out consent for Phase 1 (see Attachment 6) and signed opt-in consent for Phase 2 (see Attachment 7) of the study on the basis that the demands on and risk to the individual are significantly lower for participants of Phase 1 compared to Phase 2. Data collection for Phase 1 (brief, intermittent observations of individuals from a distance across a whole class; peer relations and school liking data collected over a period of 20-30 minutes from the whole class) will be relatively unobtrusive from the point of view of the individual participant and data will be part of a large anonymised dataset analysed with a focus on patterns rather than on individual data. Data collection in Phase 2 will place greater demands on the smaller number of children who participate with videoing of friendship pairs of individuals over 4 consecutive eating times and a recorded follow-up interview with each pair just after the last videoing session. Qualitative analysis of this data will be much more focused on individual social interaction and experience.

A similar distinction will be made when seeking consent from children in that for Phase 1 of the study children will be asked to indicate if they do not wish to take part in the study and for Phase 2 to say whether they are willing to take part if they are asked to take part as a focus child. I will not ask children to sign a consent form in either case since in similar previous research with this age group it has not been clear to me that children fully understand the nature of the research - and therefore the implications of signing a one-off form - until data collection is underway. Instead I will aim to treat children's consent or assent as an ongoing process. Thus, for Phase 1 children will be told that it is fine if they do not want to take part and to either indicate on an initial sheet or to let myself or their teacher know if that is the case. They will also be told that if they change their mind as data collection proceeds that they can let us know and opt back into the research. For Phase 2 children will need to make a decision at the outset about whether to take part. However, in both phases it will be made clear to both children and adult gatekeepers that they are free to withdraw consent for individual children's participation at any point during data collection in which case data already collected would be destroyed. And in both cases I will draw on my experience of working with children to exercise sensitivity in judging whether my research is causing distress or discomfort such that data collection with individuals should be discontinued. One key aspect of judging whether

consent/assent from children is valid is in being aware of the power differential between child participants and myself as both adult and researcher and to ensure as far as possible that opportunities for children to withdraw from the research are clear to the children and communicated sensitively as being genuine. Similarly, I will need to make it clear in information for school staff and parents that children are free to make a choice not to participate even if adult gatekeeper consent has been given.

While I will not collect formal consent forms from children, I will keep records of their opt-out of participation at any point in Phase 1 and opt-in consents or subsequent opt-outs for Phase 2.

3. Conduct of the research. Avoiding harm or discomfort to participants is a key element of carrying out research in an ethical manner (BPS, 2014, p.13). The everyday nature of the lunchroom setting, including presence of familiar companions during observations and recordings, makes it unlikely that they will be stressful for participating children. Similarly, the everyday nature of the interview content makes it unlikely that it will upset participant children. Collection of peer relations measures may draw attention to friendship difficulties for a few children. A set of measures will be planned in order to minimise risk of and respond to any possible incidents of distress and discomfort caused by the data collection.

(i) Time spent with children in class and in eating rooms before any data collection should allow children to become familiar with me and so encourage them to feel relaxed when I come to make systematic observations. By the time I come to collect peer relations data and to carry out video recordings the children should be very used to my presence.

Video Recordings

(ii) Regarding sensitivity to distress during video recording sessions, I will draw on my experience with children of this age group to be sensitive to any distress caused by my recording and to cease recording of a child promptly in any such case.

(iii) I am also aware that children who do not want to be recorded incidentally when seated with others who are focus children may suffer upset by having to sit separately to eat from their usual companions for the four days of recording. Thus, as described in Section 3f above, in order to minimise this distress, I will negotiate with the school that these children will be asked in a low key way (ideally by a familiar member of staff) if they have somewhere else they are happy to sit. If not, they will be asked where and with whom they would most like to sit instead. An adult will ask those nominated to make that child welcome for the four days of recording.

Interviews and Peer relations/school adjustment measures

(iv) Peer relations/school adjustment measures will be completed in small groups in a quiet space outside the classroom. Children will be assured that no one except me will see their individual answers. There will therefore need to be enough space for children to sit apart so that they cannot see each other's responses. I will begin each section by emphasising that there are no correct answers and that everyone has

different numbers and kinds of friends and different experiences of school. I will also break down the measures so that each section is explained and completed before the next so that children are clear about what they have to do. I will be conscious that some children may need extra support to complete the measures and will aim to provide this in as unobtrusive way as possible.

Interviews

- (v) Interviews will be carried out with friendship pairs of children in order to help provide a relaxed environment and to reduce the stress which may occur from the power imbalance of an adult interviewing a single child. In addition, the interview involves reference to a plan view map of the children's lunchroom. In previous interviews, Year 5 children have had no problem understanding this map. However, it is possible that some children may not understand such an abstract representation. It will be important to begin the interview with a careful explanation of the map and to be sensitive to such difficulties.

As with video recordings, I will carry out interviews sensitively so that where a child is distressed (e.g. by recounting an argument with a friend) questioning will not be pursued. Where distress continues the interview will be ended. Similarly, if a child appears stressed or upset by peer relations measures/school adjustment measures I will end their completion.

Risk of serious harm.

- (vi) If risk of serious harm to a child (or anyone) comes to light during observation or interviews (e.g. serious bullying of an individual by peers) relevant information will be passed to an appropriate member of school staff. This limit to confidentiality will be made clear to gatekeepers and children when information about the research is delivered.

Use of observation methods and audio/video recordings: anonymity and confidentiality

Use of observation methods to capture children's interactions during school eating times including audio/video recordings of those interactions are central to this research. This will enable me to address a lack of current understanding of the role of children's context-specific everyday interactions in their peer relationships. However, the use of video recordings of observations in naturalistic settings brings a risk of causing harm to participants by making them potentially identifiable. BPS (2014) guidance highlights the 'identity capturing' nature of video and audio data and the need to give careful thought to the storage and use of this data to protect participants. The following measures will be used to address this issue:

(i) Data Storage

Data collected will be stored as detailed in Section 7 above so that original video and audio recordings – along with peer relations questionnaires, any transcripts and field notes - are accessed only by myself and academic colleagues supporting me closely with analysis of the data. Beyond this, data from interviews and recordings of individuals will be treated as confidential except in the exceptional circumstances described under 'Risk of serious harm' above.

(ii) **Anonymisation and dissemination**

Individual children, staff and school names will be anonymised during the transcription process and in any examples of interactions or quotations from interviews. In writing up findings, care will be taken to ensure that individuals are not identifiable. No images or excerpts of video footage will be used in dissemination unless software has been used to conceal the identity of those involved (for example by obscuring faces or transforming video into a graphic format). Short audio clips may be used only where children cannot be identified from the recordings. It will be desirable to feed back some information to schools who have been involved in the research but this will only be in the form of summarised overviews of data whereby individual children are not identifiable.

As noted in Section 3f above, the use of video in a naturalistic setting means that children who are not the focus of my study may be captured incidentally in the course of interactions with a focus child or in the background of the video footage. As already described arrangements will be made so that all children, and indeed staff, who will be in the eating room at time of recording will have the option to sit or work in an area where they will not be videoed.

Other issues in relation to anonymity, confidentiality and risk of harm

It may be the case that children will be caused upset if what they say in interviews is shared outside the interview room. At the start of interviews, it will be stressed that each child may have things to say that they do not want repeated outside of the interview and that, ideally, they should keep what the other says confidential. Similarly, children will be asked not to discuss responses to peer relations and school adjustment measures in case other children who do not want to share theirs are made to feel uncomfortable.

During giving of information about the research to both gatekeepers and children assurances of confidentiality and anonymity will be given including an explanation of measures that will be taken to do so.

References

- Croll, P. (1986). *Systematic classroom observation*. London; Philadelphia: Falmer Press.
- The British Psychological Society. (2014). Code of Human Research Ethics. BPS. Retrieved from http://www.psy.ed.ac.uk/psy_research/documents/BPS%20Code%20of%20Human%20Research%20Ethics.pdf

Appendix 2: Head teacher approach letter

Institute of Education

Helen MacIntyre
Email
Dr Ed Baines (Senior Lecturer and Project Supervisor)
Email

29 June 2016

Dear [Headteacher name],

Research on the value of school lunchtimes for children's friendships and relationships
I am writing to ask if you would like to take part in research into the value of school eating times for children's friendships and relationships. This work will make an important contribution to understanding of the role of children's everyday lives at school in their well-being.

The study will involve observation and recording of Year 5 children's eating time interactions/conversations, collection of information about their relationships with one another and about their liking for lunchtimes and school. As a researcher and former primary school teacher I have long experience of working with children. I fully understand the need to be sensitive to children's experience of research activities and to avoid disruption to school life. I have a Disclosure and Barring Service certificate which I would bring to school on my first visit.

Reasons for the school lunchtime research
This research is based on the suggestion that school eating time provides one of only a few everyday opportunities for children to talk to each other about topics and issues of their choice. As such this time may play a special part in children's friendships and relationships with one another and so in their wider attitudes to school. Lunch room interaction may be particularly significant for boys who spend the majority of their playground time on vigorous activity (e.g. climbing, rough and tumble, ball games) rather than in conversation.

The research will be carried out as part of my PhD but will also form part of a larger body of UCL, Institute of Education research which examines the importance of school break times and free social interaction for children's social development.

Contributions to the school including sharing of findings
I will be able to share overall findings with the school although data relating to individual children can only be seen by me and supervising researchers. I can also share questionnaires so that they can be used by the school on other occasions to collect data about children's relationships and school/lunchtime liking. I would also hope to be helpful as a classroom volunteer for several hours each week in Year 5 classes while they are taking part in the research.

Thank you very much for taking the time to consider my request. I will telephone you in the next few days to ask if you are able to help. I would be very happy to come into [School Name] to explain the study in more detail and to answer any questions.

Yours sincerely

Helen MacIntyre (Research Student)

Appendix 3: First letter to all Year 5 parents explaining study

Institute of Education



Helen MacIntyre

Email

Dr Ed Baines (Senior Lecturer and Project Supervisor)

Email

Dear Year 5 Parent,

Research on the value of school lunchtimes for children's friendships

[Headteacher] has agreed that I can carry out research of school eating times with Year 5 children at XXX Primary School.

Studies have already shown that most children really enjoy eating and break times. This research will explore the possibility that school eating times play a special part in children's friendships with one another and so in their wider attitudes to school. The reason for this would be that eating times provides one of only a few everyday opportunities for children to have conversations about topics and issues of their choice.

In the first part of the study, I will be observing who children in Class X interact with while eating together and some details of how they interact (e.g. how much talk is involved). Each child will be observed in turn but only for a couple of minutes at a time. I will also be asking Year 5 children to complete a questionnaire. This will ask children about their friendships and about their liking for lunchtimes and school.

The research will be carefully explained to the children. I hope they will be happy to take part but they will be free at any point to say that they do not want to do so. You can also let us know if you do not want your child to be included by contacting [School Contact Name] before, during or after the study work is carried out at [School Name]. If this is after the work has begun, any information already collected about your child will be destroyed.

Safeguards, confidentiality and sharing of findings

I have many years of experience working with children as a researcher and primary school teacher and I have a Disclosure and Barring Service (formerly CRB) check. Questionnaires and observation records will be stored securely and names of children and of the school will be confidential. Overall findings will be shared with the school but no information about individual children. Information collected from [School Name] and several other schools will be used for my PhD work and findings may be published, for example, in academic journals. I will also provide a summary of the whole study findings to share with you when the research is complete.

Second part of the study

Later in the term I will be request permission from selected parents and children to make recordings of those children when – and **only** when - they are sitting and eating with other children in the school lunch room. This will allow me to look in more detail at the kinds of conversations that take place during eating times and at how they may be important for children's relationships.

If you have any questions about the research please feel free to contact me or my university supervisor, Dr Ed Baines. Our contact details are at the top of this letter. If you do not wish your child to take part, please inform [School contact name and email address].

Thank you and best wishes

Helen MacIntyre (Research Student)

Appendix 4: Study information sheet for school staff (two pages)

Institute of Education



Helen MacIntyre - PhD student, Department of Psychology and Human Development

Supervisors – Dr Ed Baines and Professor Peter Blatchford

RESEARCH ON THE VALUE OF SCHOOL EATING TIMES FOR CHILDREN'S FRIENDSHIPS AND RELATIONSHIPS

WHY STUDY SCHOOL EATING TIME?

1. Children's unstructured free time is diminishing making it important to understand the value of remaining opportunities for them to engage informally face-to-face with peers.
2. The richness and intensity of conversation between many children during school eating time is striking. Interviews and surveys have already shown that most children really value eating and break times because these are times spent with friends. Seated eating time interactions are different from the playground scene where children are often on the move. School eating times may then play a particular role in children's experience of school and in their friendships and relationships with one another.
3. Children's peer relationships are important in their own right but they are also related to emotional, behavioural and academic aspects of functioning at school.
4. The research is being undertaken for my PhD. It will also form part of a larger body of Institute of Education research which examines the importance of school break times and free social interaction for children's social development.

THE PURPOSE OF THIS STUDY

This study will involve an in-depth examination of the connection between eating time interactions and children's relationships with one another. I will also test if these relationships are connected to children's liking for school. Specifically I am asking:

What kinds of interactions take place during informal school eating times?

Are these interactions related to children's friendships and other peer relationships and, if so, how?

Are these interactions and relationships related to children's liking for school?

WHAT DOES THE STUDY INVOLVE?

IN THE SCHOOL DINING ROOM

The study will be centred on eating time observations and recordings of Year 5 children over the course of two months



PLEASE SEE THE ATTACHED TIMETABLE FOR DETAILS

Notes will be made about dining room organisation and routines to help understand the children's social experience. Staff are not being observed or assessed.

OUTSIDE THE SCHOOL DINING ROOM



Questionnaires to collect information about children's friendships, relationships and school liking in Year 5 classes



Interviews with selected children

CONDUCT OF THE STUDY

As a researcher and former primary school teacher I have long experience of working with children and in schools. I fully understand the need to be sensitive to children's experience of research activities and to avoid disruption to school life.

I have a Disclosure and Barring Service certificate which I will bring to school on my first visit.

All data will be securely stored and information about individual children will be confidential. Anonymity of schools and individuals will be maintained when the study is written up. Neither video recordings nor still images of children will be shared.

Both schools and individual children retain the right to withdraw from the study until the point where it is written up.

CONTRIBUTION TO PARTICIPATING SCHOOLS

- I will share overviews of own school and whole study findings with study schools
- Questionnaires used in the study can also be shared for school use
- I am interested in having a dialogue with staff around possible school uses of or responses to study methods and findings
- I would like to volunteer in study classes for a morning each week during the period of my visits

CONTACT INFORMATION

I am very happy to come into school or to talk on the phone to explain the study in more detail and to answer any questions.

Helen MacIntyre Email

Dr Ed Baines (Project Supervisor) Email

Appendix 5: Coding manual for school mealtime systematic observations

SCHOOL MEALTIMES AND PEER RELATIONS

CODING MANUAL FOR SYSTEMATIC OBSERVATIONS

Random selection of target child for observation

Children will be randomly selected from participating Year 5 focus class children as targets for observation. The system for doing this is designed to make it as quick as possible to identify the next child for observation in the lunchroom setting.

Tables for observation will be randomly selected. To avoid observations being skewed by interdependence of conversations between those seated together, the 2nd child observed will be selected from another table and the 3rd from a third table. The 4th observation will be from the first table again and so on.

The 1st observation will be of a child at a randomly selected seat at the table. When returning to the first table (for the 4th observation), the child at the next seat moving clockwise round the table will be observed and so on.

The aim is to complete as many 'rounds' of observation of class members as possible and everyone on the class list must be observed once before being observed again. This means that a child at randomly identified table and seat may already have been observed in that round. In that case observation moves clockwise round seats at that table to the next child who has not been observed in that round. If all children from the focus class at that table have been observed another table is randomly selected.

Time sampling

Allow 30 seconds to identify target and tune in.

*Observations will be undertaken using the following time sampling pattern:
10s Observe – 10s code*

Each target will be observed 6 times i.e. for 2 minutes

A silent vibrating timer will be used to ensure correct timing of observations.

Category Definitions and Coding Rules

Coding will be recorded on a digital voice recorder during the study as this will enable a rapid coding rate. However, this will not work during inter-observer reliability coding where simultaneous independent coding must be undertaken. A record sheet will therefore be used for this purpose.

1. IDENTITY OF TARGET AND TARGET'S GROUP

FOR INTER-OBSERVER RELIABILITIES WHERE NAMES OF CHILDREN WILL NOT BE KNOWN BY BOTH OBSERVERS ONLY NUMBER IN SOCIAL AND ACTIVE GROUP WILL BE RECORDED

Complete all:

- Name of target

- Seated group – Names the seated group of which the target is a part.
 - This is mainly defined by being seated together. However, at long sets of tables (or sometimes even smaller ones) there may be a space between two sets of children and/or clear orientation of one set of children towards one group and away from another. In this case they would be identified as two different seated groups.
 - Note this is different from 'social' group used in the playground studies which in part defined by children's interactions with one another (e.g. arrival together, greeting of each other) since here I am thinking about children who may be seated together and then either interacting with one another or not (as recorded in 'Active Group' below).
 - The seated group is likely to be relatively stable throughout the eating session although there may be coming and going at the start and end of eating time – or individuals may leave to e.g. collect food during the eating time. Where there is no change in eating group between one 10s observation of the target and the next, group can just be coded as 'the same'
 - Where a child interacts with the target from a distance (e.g. another table) or comes to join the group temporarily e.g. standing at the table – they will NOT be counted as part of the seated group – although they may be part of the active group if interacting with the target – see below.

- Active group of the Target – Names of those in the Target's active group i.e. those who are ACTIVELY engaged in conversation/interaction with the Target
 - Those in the active group will be talking themselves or physically/verbally active in the interaction of the group.
 - To be an active listener you need to be attending but also responding noticeably – nodding, giving back channel responses (e.g. 'mmm'), v brief comments
 - Those OUTSIDE the active group will either be oriented to the active group and able to become active at any moment OR oriented away from the active group. They may be interacting with others.

- Active group relates to the target so the target will not have an active group if they are listening without action or looking away from the others.
- An individual will be counted as part of the active group even if they are actively involved for 1s of the obs. – so they can become part of the active network via activity right at the end of the observation.
- **Adult presence** – Note if adult either interacting with target, social group or is in very close proximity – but not just passing by. i.e. Children may be aware of them as present and able to listen to or interact with group.

2. LEVEL OF ENGAGEMENT

Mutually Exclusive and Exhaustive – Choose 1 category

(If more than one observed, choose predominant category - 5.1s or more; if equal choose the first)

- **Solitary** – Target is seated physically alone i.e. not adjacent to others so that it is not easy for them to talk to others without moving to be nearer or raising their voice
- **Parallel** - Target is seated with others, likely to be eating side by side with others, but not appearing to engage socially indicated by lack of orientation to others e.g. gazing around the room or looking away from the talker repeatedly as if not concentrating; would seem to be unable to immediately join in with conversation as a talker without a period of re-focusing attention.
- **Social** - Engaging with others as talker or listener – listening indicated by orientation to speakers – with face and maybe also body such that they could join in with the conversation at any point.

3. TALK/VERBAL INTERACTION TYPE

Mutually Exclusive and Exhaustive – Choose 1 category unless there is NO talking

(These categories cannot logically co-occur – e.g. ‘Sustained talking’ must be for 10s and if not will become either ‘Talk exchange’ or ‘Intermittent/truncated exchange’)

- **Talk exchange / Joint Singing or Talk** Target is involved in to-and-fro conversational interaction with one or more members of the active group
OR Saying the same words simultaneously or in a highly coordinated formulaic way as when chanting as part of a game when there are set responses and turns or when singing together
- **Sustained talking** – Target talks in sustained manner during 10s observation while other(s) listen (as indicated by their orientation to target and/or responsiveness e.g. in terms of nodding or facial expression)
- **Sustained listening** – Target listens in sustained manner as indicated by orientation to talker or talkers – whereby gaze and body may be directed to talker Or (e.g. if talker and listener are side by side) there is some responsiveness in expression or head movement suggesting response to talker. Maybe nods or minimal verbal input (e.g. ‘yes’, ‘mm’)

- **Intermittent/truncated exchange** – Indicated by intermittent orientation/responsiveness of talker or listener whether on the part of the target or his/her interaction partner(s) e.g. may spend part of observation period looking elsewhere or non-responsive or break off from talking or cut off the others talk. Note: This includes occasions where speech starts at the end of the observation.
- **Initiates** – Target attempts to initiate talk/interaction either verbally or by gesture/touch but no response within the 10s observation
- **Other (Note what this is)**

4. TYPE OF ACTIVITY

These activities may occur alongside or instead of talk exchange and their social or solitary nature will be indicated by 'Engagement Level'. Code a single predominant activity (if occur simultaneously then whichever is longest) but also code eating whenever it occurs.

- **Food exchange/sharing** – Target is giving or receiving food or drink from another
 - **Food play/discussion** – Target is using food as part of game or is discussing food
 - **Singing and/or handclapping** – Target is singing, chanting or hand clapping (could be alone or with others)
 - **Reading, writing, drawing**
 - **Play/game (may be equipment e.g. football cards)**
 - **Using phone or electronic equipment**
 - **Unoccupied/Onlooking** – Target is passive and not doing anything – looking at floor, food or elsewhere OR watching others from a distance (children or staff). This could mean watching others from whom slightly removed e.g. at the other end of the table; it could mean the target is watching others across the room. It include the case of sustained listening where the target is focused on others talking, in close proximity so that might participate in conversation at any moment, but NOT responding/contributing at all.
 - **Other (Note what this is)**
-
- **Eating** – Always note if eating whether alongside another activity or not

5. FACIAL EXPRESSION/VOICE

Of the 5 category sets below code any that occur.

If no distinctive expression for the whole 10s then do not code.

ALSO Use a priority system within the groups of categories below so that 'Laughing' would be coded if it occurred rather than 'Smiling' even if both occur; 'Upset and crying' would be coded rather than 'Clear frowning/scowling/whining' if both occur.

There must be clear evidence of the expression – if not evident then do not count.

1. Laughing
1. Smiling

-
2. Upset and crying
 2. Clear frowning/scowling/whining

-
3. **Dramatic/animated facial expression or voice** - pronounced animation of facial expression – e.g dramatically raised eyebrows or open mouth OR of voice e.g. voice put on during game, voice used to give dramatic emphasis during conversation

[Note: As with 'physical animation – this facial/vocal animation is one observable feature of interaction – cannot be defined as positive or negative but perhaps provides some indication of intensity of involvement/liveliness which may be perceived by interaction partners and so influence or express their relationship.]

4. **Other (Note what this is)**
5. **Unobservable – e.g. face in hands**

6. ADDITIONAL OBSERVABLE CHARACTERISTICS OF INTERACTION

To be noted whenever they occur

- **Physical animation** – Target is making noticeable hand or body animation during interaction – no contact in contrast to categories below – gesturing to emphasise/demonstrate/ express meaning rather than affect.
[Note to myself: As with 'Dramatic/animated facial expression' observable feature of interaction – cannot be defined as positive or negative but perhaps provides some indication of intensity of involvement/liveliness which may be perceived by interaction partners and so influence or express their relationship]
- **Positive affect/Intimacy** – Target is giving or receiving touch in an affectionate way - arm round shoulder, linked arms, holding hands, heads clearly together [sometimes this heads together is part of a game such as Chinese Whispers in which case I haven't coded it as positive affect], back slapping, shoulder patting/touching, hair grooming
- **Rough and tumble/Play-fight** – (Possibly less energetic seated version compared to playground) Play fighting, fun pushing, messing around, play slapping etc This will usually be accompanied by laughing and smiling or neutral expressions. The participants do not separate after and may continue to interact, full force not used, flat hand rather than fist, take turns to hit/swap roles OR may

be giving/receiving cheekiness – e.g. taking another’s hat, throwing food and hiding – incorporates smiling and often part of a game

- **Negative affect/ overt aggression** target is giving or receiving angry shouting, obvious conflict/argument, name-calling, criticism, teasing/taunting (e.g. rude gestures, taking a belonging and dangling near person) OR aggressive hitting, kicking, punching, poking, snatching, throwing – facial expression may be negative or ‘smiley but lairy’ – victim likely to look concerned.
- **Other (Note what this is)**

7. TOPIC/CONTENT OF CONVERSATION

Where possible note content and type of conversation. This may be recorded on the basis of audible speech or through checking in with children later on. This will be counted as additional qualitative data and the intention is to collect it whenever possible while realising there will be times when this is not possible. The point will be to get some sense of the variety of conversation types taking place.

<p>Examples of content could be:</p> <ul style="list-style-type: none"> • Eating group formation • Food • Future joint activity • Past joint activity • Popular culture • News • Re school • Re out of school • Other groups or children 	<p>Examples of conversation type could be:</p> <ul style="list-style-type: none"> • Argument • Discussion • Negotiation • Game • Joke/Humour • Information exchange • Praise • Comfort • Criticism • Gossip
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Appendix 6: Overview sheet of school mealtime systematic observation codes

1. IDENTITY OF TARGET AND TARGET GROUPS	2. MAIN ENGAGEMENT LEVEL	3. TALK/VERBAL INTERACTION TYPE	4. MAIN TYPE OF ACTIVITY	5. FACIAL EXPRESSION/ VOICE	6. ADDITIONAL OBSERVABLE CHARACTERISTICS OF INTERACTION	7. TOPIC/CONTENT OF TALK Recorded in qualitative note if possible
<i>Complete All</i>	<i>MEE – Choose 1</i> <i>Predominant if more than 1</i>	<i>MEE- Choose 1</i>	<i>Code</i> <i>1. Predominant category (>5s) – or longest if more than one occur simultaneously</i> <i>2. If eating</i>	<i>Code any occurring</i> <i>Or ‘None’ if for 10s</i> <i>BUT within 1 and 2 there is priority</i>	<i>Code any occurring</i>	<i>If possible note content and type of conversation for each obs</i>
<p>Name of target</p> <hr/> <p>Seated Group</p> <hr/> <p>Active group</p> <hr/> <p>Adult presence</p> <hr/>	<ul style="list-style-type: none"> • Solitary • Parallel • Social 	<ul style="list-style-type: none"> • Talk exchange/joint singing or talk • Sustained talking • Sustained listening • Intermittent/ truncated exchange • Initiates • Other – NOTE • No talk 	<ul style="list-style-type: none"> • Food exchange/sharing • Food discuss/play • Singing and/ or handclapping game • Play/game (may be equipment) • Reading/writing/ drawing • Using phone or electronic equipment • Unoccupied / onlooking • Other – NOTE <hr/> <ul style="list-style-type: none"> • <u>Eating</u> 	<ul style="list-style-type: none"> • Laughing • Smiling <hr/> <ul style="list-style-type: none"> • Upset/Crying • Clear frowning/ scowling/ whining <hr/> <ul style="list-style-type: none"> • Dramatic/animated facial expression • Other - NOTE • Unobservable • None 	<ul style="list-style-type: none"> • Physical Animation • Positive affect/intimacy • R&T/ playfight • Negative affect/aggression • Other – NOTE • None 	<p>Examples of content</p> <ul style="list-style-type: none"> • Eating group formation • Food • Future joint activity • Past joint activity • Popular culture • News • Re school • Re out of school • Other groups or children <p>Examples of conversation type</p> <ul style="list-style-type: none"> • Argument/bickering • Discussion • Negotiation • Game • Joke/Humour • Information exchange • Praise • Comfort • Criticism • Gossip

Appendix 7a: Questionnaire Section 1 – Peer acceptance











My Classmates Questionnaire

My first name is...

My last name is...

--	--

Show how much you like to be with each person by ticking a box under a face:

	 1	 2	 3	 4	 5
Name 1					
Name 2					
Name 3					
Name 5					
Name 6					
Name 7					
Name 8					
Name 9					
Name 10					
Name 11					
Name 12					
Name 13					
Name 14					
	 1	 2	 3	 4	 5

Appendix 7b: Questionnaire Section 2 - Best friend nomination

Who are your best friends?

My first name is...

My last name is...

--	--

The three children in Year 5 I count as my best friends are:

First name	Last Name

Appendix 7c: Instructions for completing Questionnaire Sections 1 and 2 (see Appendices 7a and 7b)

School Eating Time Study - Questionnaire Part 1 Instructions (Sections 1 and 2) (5-10 mins admin)

(Remember to ask children to put name at start of each section)

For my research on school lunchtimes it will be important to find out more about who gets on well with who and who are friends with each other in Year 5. I also want to know what Year 5s think about school and lunchtimes. You are the people who can help me find this out by answering some questions on a questionnaire for me.

We will be doing some parts of the questionnire today and some on [next session].

Today's questionnaire has 2 parts.

Your answers will only be used to find out what all kids think about how much they like to be with each other. I will not tell anyone your name and your own particular answers will not be shared with your friends, teachers or parents.

In order to keep your answers to yourself – you will want to put your arm and folder around your paper and when finished put the paper away in your folder.

I ask you to write your name so I can match the different parts of the questionnaires and know which answers belong with which other answers.

The biggest help for understanding your friendships will be if everyone answers all the questions on the questionnaires. I can help you if there is anything you are not sure how to fill in. However, if there is any question you really don't want to answer that is fine. You can just leave it blank.

1. PEER ACCEPTANCE (2 mins)

To begin with look at the first two pages – 'My Classmates Questionnaire'

I am going to ask you:

How much do you like to be with each person in Year 5?

This asks you about kids in your class but also in other Year 5 classes.

This is what you need to do:

[Demonstrate with the Demonstration Sheet 1]

The questionnaire gives a list of all the kids in your (Year 5). You are asked to say how much you like to be with each person. It doesn't matter if they are people who you usually hang around with or not – just say how much you like to be with them.

To do this you will tick under a smiley face beside each name.

For example: How much do you like to be with Fred/Grace? Which face best fits how much you like to be with THAT person.

2. FRIENDSHIP NOMINATIONS (Very quick)

*Next see the page headed: **Who are your best friends?***






I have given you spaces to list up to 3 of your friends but I realise that we all have different numbers of friends.


If you count more than 3 kids as friends that's fine but please list the 3 that you count as your best friends. If you count less than 3 children as your friends that's also fine. You can leave any spaces blank.


THANK YOU!!!


Appendix 7d: Demonstration Sheet 1 for use with instructions on questionnaire completion (see Appendix 6c)


How much do you like to be with this person?


						
	5	4	3	2	1	
Fred						

 **1**

 **2**

 **3**

 **4**

 **5**

↓

Not at all

↓

Not much

↓

Don't mind one way or the other

↓

Quite a lot

↓

Very much

Appendix 8a: Questionnaire Section 3 – School liking (adapted from the ‘School liking and Avoidance Questionnaire’ (Kochenderfer & Ladd, 1996)

What do you think about lunchtimes and about school?

My first name is:

My last name is:

--	--

		Disagree a lot	Disagree a bit	Neither agree or disagree	Agree a bit	Agree a lot
1.	School is fun.					
2.	I like meal times at school.					
3.	I have fun during school eating times.					
4.	School makes me feel like crying.					
5.	I am happy when I'm at school.					
6.	I like to leave the school lunch room as quickly as possible.					
7.	I hate school.					
8.	I like play time.					
9.	Eating times at school are awful.					
10.	I like being in school.					
11.	I like to come to school.					
12.	I enjoy talking to other kids during eating times.					
13.	School is a fun place to be.					
14.	School makes me feel unhappy.					
15.	I enjoy the food I eat at school.					
16.	I hate play time.					
17.	When I get up in the morning, I feel happy about going to school.					
18.	School is awful.					
		Disagree a lot	Disagree a bit	Neither agree or disagree	Agree a bit	Agree a lot

Appendix 8b: Questionnaire Section 4 – Best friendship quality

WHAT KIND OF FRIENDSHIP DO YOU HAVE WITH						
ID		Not True	Might be True	Usually True	True	Always True
1.	If other kids were bothering me, would help me.					
2. helps me when I am having trouble with something.					
3.	If had to move away, I would miss him/her.					
4.	When I do a good job at something, is happy for me.					
5.	Sometimes does things for me or makes me feel special.					
6.	I can get into fights with					
7. would stick up for me if another kid was causing me trouble.					
8. can bug me or annoy me even though I ask him/her not to.					
9.	If I forgot my lunch or needed a little money, would lend it to me.					
10.	If I said I was sorry after I had a fight with, he/she would stay cross with me.					
11. would help me if I needed it.					
12.	If or I do something that bothers the other one, we can make up easily.					
13. and I can argue a lot.					
14. and I disagree about many things.					
15.	If and I have a fight or argument we can say "I'm sorry" and everything will be alright.					
16.	I feel happy when I am with					
17.	I think about even when he/she is not around.					
18. can brag show off or boast about doing something better than you.					
		Not True	Might be True	Usually True	True	Always True

Questions contributing to subscales: *Conflict* – 6, 8, 13, 14; *Help/aid* – 2, 9, 11; *Help/protection* – 1, 7; *Closeness/affective bond* – 3, 16, 17; *Closeness/reflected appraisal* – 4, 5; *Security/transcending problems* – 10, 12, 15. Note Q18 is an additional item to tap into rivalry as an additional negative aspects of friendships (Berndt & McCandless, 2011).

Appendix 8c: Instructions for completing Questionnaire Sections 3 and 4 (see Appendices 8a and 8b)

School Eating Time Study - Questionnaire Part 2 Instructions (5-10 mins admin)

(Remember to ask children to put name at start of each section)

This questionnaire has two parts. The first is asking what you think about school and school lunchtimes; the second part asks you some more questions about your friends.

As for the last sections - Your answers will only be used to find out what all kids think about how much they like to be with each other. I will not tell anyone your name and your own answers will not be shared with your friends, teachers or parents.

In order to keep your answers to yourself – you will want to put your arm and folder around your paper and when finished put the paper away in your folder.

I ask you to write your name so I can match the different parts of the questionnaires and know which answers belong with which other answers.

Again - The biggest help for understanding your friendships and will be if everyone answers all the questions on the questionnaires. I can help you if there is anything you are not sure how to fill in. However, if there is something you really don't want to answer that is fine. You can just leave it blank.

1. SCHOOL AND LUNCHTIME LIKING (5 mins)

The first part today begins with some questions about school and lunchtimes.

It asks you:

What do you think about about school and about school lunchtimes?

This is what you need to do:

There is a list of sentences saying what you might think about school.

You are asked to tick a box to say how much you agree or disagree with each sentence – this should be the closest to what you think about school or lunchtime.

Read each sentence carefully and think about how much you agree with that sentence.

[Demonstrate with the Demo Sheet 2]

Stop when you get to the end of this section

2. FRIENDSHIP QUALITY (10 mins)

I'm going to ask you some more questions about your friends.

When you filled in the questionnaire about all your Year 5 classmates (/year group), you told me the names of some of your best friends.

We have all kinds of different friendships with different people. So this time I am asking you:

What are your friendships like?

This is what you need to do:

[Demonstrate with the Demo Sheet 3]

Each page asks you to answer questions about a friendship with ONE person. The name of your friend will appear in the questions. The important thing is to answer the questions about your friendship with the person named on the page.

Now read the sentences describing your friendship and tick under the BEST answer to say how true it is about your friendship. You will need to tick under the answer

Not True 1	Might be True 2	Usually True 3	True 4	Always True 5
---------------------------	--------------------------------	-------------------------------	-------------------	------------------------------

THANK YOU!!!

Appendix 8d: Demonstration Sheets 2 and 3 for use with instructions on questionnaire completion (two pages - see Appendix 7c)

2. What do you think about school and about school lunchtimes?

Please answer the questions on the other side of this page by ticking under the answer which is closest to what you think about school or about lunchtimes by saying how much you agree or disagree with each sentence.

	Disagree a lot	Disagree a bit	Neither agree or disagree	Agree a bit	Agree a lot
1.	I like oranges				
2.	Strawberries are horrible.				

3. What are your friendships like?

Read the sentences describing your friendship and tick under the BEST answer to say how true it is about your friendship. You will need to tick under the answer

Not True 1	Might be True 2	Usually True 3	True 4	Always True 5
---------------	--------------------	-------------------	-----------	------------------

For example:

What kind of friendship do you have with Mel ?

	Not True 1	Might be True 2	Usually True 3	True 4	Always True 5
1.					
2.					

Appendix 9: Full lists of interaction content recorded in qualitative notes attached to systematic observations

Note:

1. Interaction content observed in more than one school indicated by +; and in all four schools indicated by *
2. Event frequency is recorded here to show number of separate times an interaction type occurred not observation frequency i.e. an interaction game counted once here, such as a game, may have lasted for several consecutive observations.

Table 1: Relational interaction or activity – food or lunchroom related

Relational interaction type/ activity	Count
• Seating saving or organising - saving places for self/others to sit, or organising/encourage sitting together, or being barred from seating because of saving	23*
• Food sharing, exchange or taking – e.g. <i>children offering food to others; negotiating swaps; begging for food; taking something from another’s lunch in a comic way when the owner wasn’t looking; one humorous instance where someone had left an interesting cereal or chocolate bar on a neighbouring table and the children gradually noticed it, wondered about it, got it, examined it and finally shared it and ate it</i>	22*
• Rushing eating often at very high speed often when companions begin to leave so they can go out with friends	10+
• Waiting for companions after finish eating so they can leave together including whole groups coordinating their departure; trying to delay a friend’s departure	8+

Table 2: Relational interaction or activity – non mealtime specific

Relational interaction type/ activity	Count
• Reminiscence – ‘Do you remember....?’	4+
• Organising a group to play a game /engage in an activity	6+
• Planning later playground activity or where to meet in the playground after eating lunch	2
• Gossip about others	4+

Table 3: Talk topics and mealtime activities not specific to the mealtime or lunchroom

Talk topic (Non-mealtime related)	Count	Activity (Non-mealtime related)	Count
• Music bands which the children were playing in or setting up	1	• Drawing/looking at drawings	2
• Computer games – how long they have been out; what they are like	1	• Getting information from someone and noting it down in a notebook	2 +
• Football and football allegiances	3 +	• Looking through coloured water bottles to see the effect on what children can see	1
• Pets	1	• Seated singing, dancing, drumming	16+
• Clothing and logos	2 +	• Demonstrating martial arts punches (playfully and seated – no contact)	1
• Hairstyles	3 +	• Traditional game playing (including hand-clapping and chanting games; Rock, Paper Scissors; Wink Murder; Chinese Whispers, Dares)	15*
• Halloween plans and experiences	3	• There was also game playing which involved current ‘crazes’ among children and which were different in different schools since old crazes had faded and new ones emerged (Dabbing, Pokemon, Bottle-flipping, Fidget Spinners)	16*
• Objects or possessions of interest – e.g. rainbow pens, fidget spinners	6 +	• ‘Put your hand up if...?’ – where one person asks the question and others in group put their hands up (or not) in response	7 +
• Use of gender-neutral pronouns by transgender children	1	• Chasing (around table)	1
• The ‘badness’ of a Nazi salute	1	• Hiding/stealing others’ possessions	2+
• Playground activities	2 +	• Adjusting own hair	1
• Other school activities (cross country run)	1	• Singing ‘Happy Birthday’	2+

Table 3 continued:

Talk topic - Non-mealtime related	Count	Activity - Non-mealtime related	Count
		<ul style="list-style-type: none"> • Hand play e.g. making up hand signs, making shapes with hands and mirroring them e.g. copying each other's head movements • Playfighting – mainly in a low-key seated way • Pretend play – e.g. <i>Boys getting down on knees to make mock marriage proposals to girls seated at the same table, pretending to do CPR</i> 	<p>12*</p> <p>9*</p> <p>3+</p>


Table 4: Talk topics and mealtime activities related to the mealtime or lunchroom

Talk topic - food or lunchroom related	Count	Activity - food or lunchroom related	Count
Discussing food items of interest especially from packed lunches but also school dinners <i>e.g. showing a desirable item of food; expressing food likes and dislikes or even disgust</i>	49*	Organising food especially in packed lunches; getting cups and pouring water for whole group	18*
Complaints/discussion about lunches/lunchroom <i>e.g. about time waiting before get food; that a particular school dinner food had run out; warning others not to sit on seats with food mess on them</i>	8+	Playing with food or food equipment <i>e.g. spinning lunch boxes; 'scoring goals' by throwing juice carton into waste bin or lunch box into class storage box, playing 'Master Chef' by re-arranging/mixing school dinner food on their plate; bursting plastic wrappers</i>	13*
Discussing lunchroom display	2+	Focus on lunchroom furniture or equipment – <i>e.g. swapping chair, cleaning mess from table</i>	14+

Table 4 continued:

Talk topic - food or lunchroom related	Count	Activity - food or lunchroom related	Count
<ul style="list-style-type: none"> • Noticing and discussing events/people around the lunchroom e.g. <i>other classes coming in, adult telling child off, an argument, dramatic reaction to a bee flying around</i> 	41*	<ul style="list-style-type: none"> • Negotiating rules e.g. <i>getting adult permission for food collection, throwing food away, to leave</i> 	28*

Appendix 10: Letter to selected Year 5 parents requesting consent for videoing of focus children

<p>Institute of Education</p> 
<p>Helen MacIntyre Email Dr Ed Baines (Senior Lecturer and Project Supervisor) Email</p>
<p>Dear Parents of xxx,</p> <p><u>School lunchtime and friendship research – Recording and interview permission</u></p> <p>I wrote to you earlier in the term about my research at [School Name]. My study explores the possibility that school eating times play a special part in children’s friendships with one another and so in their wider attitudes to school and well-being. The reason for this would be that eating times provides one of only a few everyday opportunities for children to have conversations about topics and issues of their choice.</p> <p>I am writing to ask if you will give permission for XXX to be recorded during school eating time - along with a friend - as part of this lunchtime research. Work with your child would involve two activities aimed at finding out in more detail how eating time conversations might be important for children’s friendships.</p> <p><u>Research activities would involve:</u></p> <ol style="list-style-type: none">1. Making video recordings of your child, their friend and the children they talk to when – and only when - they are sitting and eating in the school lunch room. Recordings will be made during 4 eating times.2. One follow-up interview with your child and their friend when children are asked to remember and talk about one of their lunch times. This will be audio recorded and last 30-40 minutes. <p><u>Safeguards and permission</u></p> <ul style="list-style-type: none">• I have many years of experience working with children as a researcher and primary school teacher and I have an up-to-date Disclosure and Barring Service (formerly CRB) check.• If you give permission, I will carefully explain the research to the children being recorded/ interviewed and ask if they are willing to take part. I will also keep checking if they are happy to continue before and during the activities above.• Both you and your child will be completely free to withdraw from the research at any time until the study is written up. In this case recordings and transcripts (written versions of recordings) of your child would be destroyed.• Recordings and transcripts will be stored securely and names/images of children and of the school will never be used when I write up findings. <p>If you have any questions about the research, please feel free to contact me or my university supervisor, Dr Ed Baines. Our contact details are at the top of this letter. IF YOU ARE HAPPY FOR YOUR CHILD TO TAKE PART PLEASE RETURN THE PERMISSION SLIP BELOW TO [Teacher’s Name].</p> <p>Thank you and best wishes Helen MacIntyre (Research student)</p> <hr/> <p>I give permission for my child to be recorded during school lunch time and interviewed at XXX School as part of work undertaken by Institute of Education research student, Helen MacIntyre.</p> <p>Child’s name (in capitals): _____</p> <p>Signed: _____ (parent/guardian) Date: _____</p>

Appendix 11: Letter to all Year 5 parents explaining school mealtime videoing

Institute of Education



Helen MacIntyre

Email :

Dr Ed Baines (Senior Lecturer and Project Supervisor)

Email :

Dear Year 5 Parent/Carer,

Research on the value of school mealtimes for children's friendships

You may remember from my earlier letter that I have been doing some research with Year 5 at [School Name] to find out about the value of the time children spend eating lunch and talking together. I am studying whether this kind of conversational time is important for their friendships and so for their wider feelings about school and well-being. Over the last few weeks I have been making brief observations of Year 5 children during school mealtimes and the children have been completing some questionnaires.

Videos of selected children during school mealtimes with permission from parents and children

During the final part of the research in November I will be requesting permission from a few parents and children to make recordings of those children when – and **only** when - they are sitting and eating with other children in the school dining room. This will allow me to look in more detail at the kinds of conversations that take place during eating times and at how they may be important for children's relationships. The videoing will be explained to all children so that if they want to sit away from individuals who are the focus of recording – or if you want them to avoid the recording - they will be able to do so.

Safeguards, confidentiality and sharing of findings

- Recordings will only be used for the purposes of this research and they will be stored securely. Videos, the names of children involved and the name of the school will never be shared publicly. Overall findings will be shared with the school but no information about individual children.
- I have many years of experience working with children as a researcher and primary school teacher and I have a Disclosure and Barring Service check.

If you have any questions about the research please feel free to contact me or my university supervisor, Dr Ed Baines (contact details above). If you have questions for the school about the research, please contact [Staff name and email address].

Thank you and best wishes

Helen MacIntyre (Research Student)

Appendix 12: Elements from Charmaz's (2006) Grounded Theory qualitative analysis guidelines used (or not) for analysis of video extracts undertaken in this study as explained in Chapter 7

1. Overarching approach

- It is an open, inductive approach which addresses the question, 'What is happening here?' and where analysis is grounded in the data '...not from preconceived, logically deduced hypotheses' p.5.
'... grounded theory methods consist of systematic, yet flexible guidelines for collecting and analysing qualitative data to construct theories 'grounded' in the data themselves.... Thus, data form the foundation of our theory and our analysis of these data generates the concepts we construct.... We begin by being open to what is happening in the studied scenes and interview statements so we might learn about our research participants' lives.' pp.2-3
- Despite the avoidance of 'preconceived hypotheses' it is acknowledged that the researcher will bring some broad ideas and areas of interest to the research:
'Consistent with Blumer's (1969) depiction of sensitizing concepts, grounded theorists often begin their studies with certain research interests and a set of general concepts. These concepts give you ideas to pursue and sensitize you to ask particular kinds of questions about your topic.' p.16
- Grounded theory focuses on processes embedded in observations or interview data
'A process consists of unfolding temporal sequences that may have identifiable markers with clear beginnings and endings and benchmarks in between. The temporal sequences are linked in a process leading to change.' p.10

2. Coding of data

There are two phases of coding data: initial and focused coding.

- Initial coding 'involving naming each word, line or segment of data' p.46
Charmaz's 'code' for initial coding is to 'Remain open; Stay close to the data; Keep your codes simple and precise; Construct short codes; Preserve actions; Compare data with data [see below]; Move quickly through the data.' p.49

'Preserving actions' is supported by using action words (gerunds or -ing words) and is central to identifying processes rather than 'topics' (see p.69)
- Focused coding is a 'selective phase that uses the most significant or frequent codes to sort, synthesize, integrate, and organise large amounts of data.... you use focused coding to pinpoint and develop the most salient categories in large batches of data. Theoretical integration begins with focused coding and proceeds through all your subsequent analytic steps. p.46

3. Interlinked analysis techniques and tasks which build on coding

- **Memo writing:** *'When you write memos, you stop and analyse your ideas about the codes in any- and every-way that occurs to you during the moment...Memo writing constitutes a crucial method in grounded theory because it prompts you to analyse your data and codes early in the research process. Writing successive memos throughout the research process keeps you involved in the analysis and helps to increase the level of abstraction of your ideas. Certain codes stand out and take the form of theoretical categories [see below] as you write successive memos.'* p.72

Charmaz lists different things a memo may do:

'Define each code or category by its analytic properties; Spell out and detail processes subsumed by the codes or categories; Make comparisons between data and data, data and codes, codes and codes, codes and categories, categories and categories [see below]; Bring raw data into the memo; Provide sufficient empirical evidence to support your definitions of the category and analytic claims about it; Offer conjectures to check in the field settings; Identify gaps in the analysis; Interrogate a code or category by asking questions of it.' p.82

- **Constant comparative method:** A key function of thinking/analysis through memo writing is to make 'constant comparisons'. These are used to find similarities and differences in data and concepts in order to *'establish analytic distinctions and thus make comparisons at each level of analytic work'* (p.54) beginning with comparing data with data (within and between individuals) and your own ideas with data. Elaboration of categories [see below] and analysis occurs through the process of comparison

In advanced memos Charmaz says that the method may be used to:

'Compare different people (such as their beliefs, situations, actions, accounts or experiences); Compare data from the same individuals with themselves at different points of time; Compare categories in the data with other categories....Which categories should become major sections? Which should be relegated to minor status?; Compare subcategories with general categories for fit; Compare subcategories within a general category; Compare concepts or conceptual categories; Compare the entire analysis with existing literature or the ruling ideas in a field; Refine the consequences of your analysis.' p.81

- **Developing categories from focused codes:** One function of memo writing is to integrate codes into categories. Of this process, Charmaz says:

'Through engaging in focused coding, you begin to sketch the content and form of your budding analysis. Attempting to treat focused codes as categories prompts you to develop and scrutinize them. Then you can evaluate these tentative categories and decide whether they are categories. If you accept these codes as categories, clarify what they consist of and specify the relationships between them.' p.91

'Categories explicate ideas, events or processes in your data- and do so in telling words. A category may subsume common themes and patterns in several codes.' p.91

'During coding you asked what category does this piece of data indicate? Now ask: what category does this code indicate?...Grounded theorists look for substantive processes that they develop from their codes. As grounded theorists create conceptual handles to explain what is happening in the setting, they may move toward defining generic processes (Prus, 1987).' p.92

- **Theoretical coding**

At a more advanced stage theoretical codes are developed. Charmaz says,

'In short, theoretical codes specify possible relationships between categories you have developed in your focused coding...Theoretical codes are integrative; they lend form to the focused codes you have collected. These codes may help you tell an analytic story that has coherence. Hence, these codes not only conceptualize how your substantive codes are related, but also move your analytic story in a theoretical direction.' p.63

4. Sampling

The grounded theory approach to sampling data is distinguished from other approaches which, for example, seek to draw data from a representative population. It includes:

- **Initial sampling**

'Initial sampling provides a point of departure, not of theoretical elaboration and refinement....Initial sampling is where you start whereas theoretical sampling directs you where to go. For initial sampling, you establish sampling criteria for people, cases, situations, and/or settings before you enter the field. You need to find relevant materials for your study....' p.100

- **Theoretical sampling**

'Theoretical sampling involves starting with data, constructing tentative ideas about the data, and then examining these ideas through further empirical enquiry. Theoretical sampling not only helps you fill out the properties of your categories, you can learn more about how a basic process develops and changes. When you engage in theoretical sampling, you seek statements, events or cases that will illuminate your categories.' pp.102-103

'Theoretical sampling also follows a different logic than sampling techniques for traditional quantitative research design. The purpose of theoretical sampling is to obtain data to help you explicate your categories. When your categories are full, they reflect qualities of your respondents experiences and provide a useful analytic handle for understanding them. In short, theoretical sampling pertains only to conceptual and theoretical development; it is not about representing a population or increasing the statistical generalizability of your results.... grounded theorists sometimes offer grist for emergent hypotheses that other researchers might pursue.' pp.100-101

- **Theoretical saturation**

'Categories are 'saturated' when gathering fresh data no longer sparks new theoretical insights, nor reveals properties of these core theoretical categories.' p.113

Appendix 13: Complete logs of school mealtime video episodes for Girls Pair 1 (Mimi and Natalie) and Boys Pair 1 (Kieron and Gabe)

Girls Pair 1, Day 2		Girls Pair 1, Day 3		Girls Pair 1, Day 4	
Time	Content	Time	Content	Time	Content
2min 2s	Seating: 5 girls arrive together to sit then Eliza. Mimi whispering to Eliza. Natalie leans over and joins in. Intermittent counting game being played around the group - interspersed with ongoing seating (Alfie arrives and Mimi suggesting where he should sit; then Evie arrives and talk about whether she can sit at remaining seat where someone has left their coat). Natalie interested in Nisa's lunchbag.	1min 6s	Seating. Natalie singing.	40s	Arriving with food. Scrabble for seating at table including Natalie and Karl saving seats for Afra and displacing Erin who has rushed to sit there and then leaves the lunchroom very upset.
3 mins 4s	Hand clapping game with all joining in – Natalie organising and Mimi helping at various points. All playing. Interwoven with M and N interest in Nisa's packed lunch.	3min 40s	Natalie attending to conversations. Mimi (and sometimes Natalie) engaged in recurrent discussion/argument re seating with Erin and others. Afra singing. All interspersed with Natalie singing and hand clapping with Eliza. Natalie goes to get lunch. Mimi continues conversation about who sits where. Natalie returns.	1min 31s	Natalie celebrating the final seating. Then onlooking Mimi and others discussing Erin's departure. Natalie empathising with Eliza who was upset who was excluded during the original rush for seating.

Girls Pair 1 continued:					
2 mins	Gone to get lunch	1 min 11s	Mimi leaves to get lunch and returns at end. Natalie eating then goes to get jug of water. All eating.	4 mins 17s	All discuss their ideal eating group and Natalie and Karl tell Afra about Erin leaving upset. Mimi talks to Annie and Nisa about Nisa's and her own playground injuries; interwoven with all playing 'Chinese Whispers'.
5 mins 13s	Re-seated - food and general chat over meal – Natalie's talk about Afra being one teacher's best friend, then about eating peas and being sick; Mimi pinching her nose because of macaroni cheese, listening to Nisa, Annie and Natalie talk.	1 min 35s	Natalie and Mimi talk about M's brother's birthday and friends; then eating and onlooking.	1min 45s	Natalie asks 'I wonder who's won the ...?' They have a conversation about Mimi joining Natalie's team so that the other team can't have won. Mimi is eating and onlooking. Mimi and Natalie listen as Nisa talks about Freddy going round poking people – which Mimi turns into a game of 'Poke pass it on.' Natalie onlooking.
1 min 38s	Natalie and Mimi eating and trying Nisa's challenge to read what it says on her top - 'Guys, the first person to read this gets a point in my [Nisa's] brain' Mimi wins. Mimi eating. Natalie listens to Alfie's talk about someone.	10mins 34s	Mimi has jokey conversation with Astrid about Astrid's sandwich and Natalie joins in. Mimi talks to Erin about learning how to play games at 'Laser Zone'. Natalie initiates three truths and a lie game interspersed with conversation about the truths and lies. Leave.	3 mins 22s	Chinese Whispers moves round the table. Natalie leaves and returns. More Chinese Whispers and Natalie encourages Eliza to hurry up before leaving. Mimi continues playing including whisper about Trump winning the American election.

Girls Pair 1 continued:					
4 mins 53s	Natalie getting spoon; Mimi eating and listening to others singing Natalie asserting her talk then joining in game of 'Chinese Whispers' with Mimi and others; talk about chocolate fountain and marshmallows. Leaving.				
Total: 18 mins 10s		Total: 18 mins 6s		Total: 12 mins 35s	

Boys Pair 1, Day 2		Boys Pair 1, Day 3		Boys Pair 1, Day 4	
Time	Content	Time	Content	Time	Content
4 mins 7s	Kieron and Gabe arrive (after band practice) and join others. Freddy also joins them soon afterwards. Singing 'Rhinstone Cowboy' - and talk about bands. Episode of dabbing. Then discuss band rivalry.	4 mins 22s	Gabe arrives and joins Chris and William - Kieron arrives - debate about seating - as joined by Lee, Remy, Freddy and Ned - no more places as Lee arrives leading to a long debate about the seating. Kieron very vocal.	1 min 40s	Kieron arrives. Seating. Vik sits down and Lee pushes him away. Freddy and Isaac arrive. Vik chased off. Gabe arrives.
1 min 58s	Discussing filming; reds called for lunch and Gabe and Lee leave. Kieron continues singing - then all leave to get lunches.	3 mins 5s	Gabe talking to Chris about games they've been playing outside; Lee moves to sit in place vacated first by Joey then by Ned. General discussion of things that are rude to do and about hunger; Gabe leaves to get cups and Kieron then Gabe go to get lunch.	2min 25s	Gabe arrives. Lee putting arm round Gabe. Gabe begins a Pokemon conversation with Kieron - 'I haven't got any Snorlaxes'. Others join in. Lee explains to Gabe how he chased off Vik. Pokemon conversation resumes.

Boys Pair 1 continued:					
7 mins 10s	Gabe suggests playing 'Never have I ever' to Freddy. Lee returns having lost packed lunch and then leaves. Joey and Kieron return with lunches. Gabe resumes instructions for 'Never have I ever...' and they play the game. Lee returns with lunch. Kieron loses to Joey and goes to get a spoon.	1 min 47s	Kieron returns and is absorbed by eating and onlooking. Brief exchange with Freddy - 'I'd rather have school dinners than packed lunch.' Humming to self.	3 mins 1s	Discussion about filming. Adult talking to Freddy.
2 mins 26s	Comic discussion of Gabe 'toilet papering' a neighbour's window sills. Gabe explaining the rules of 'Never have I ever' to Lee. The game recommences. Gabe goes to get a spoon and Kieron eating while others have football training chat - K joins in at the end.	5 mins 30s	Gabe returns with dinner - apologising to Joey for bumping him. General conversation about gravy. Teacher arrives and talks at length to the boys about virtual reality and computer games. Intermittent talk between Kieron and Joey. Gabe quiet.	3 mins 11s	Food conversations – Vegetarian, Pescatarian, Omnivore or Carnivore? – especially between Kieron, Gabe and Lee. Talk about when Freddy's dog Bella stole Eddie's yogurt. Kieron sparks 'competition' for, 'How many times I've been to Freddy's house'.
5 mins 9s	Gabe returns with spoon and 'Never Have I Ever' game recommences; Freddy moved out by MDSA because he's finished lunch; Kieron and Gabe leave continuing the game as they go.	2 mins 16s	Kieron talks to Remy and Joey about computer games and Youtube videos. Gabe joins in the maths conversation with teacher restarting conversation about virtual reality headsets. Kieron eating as Joey and Remy talk about some technology? (3D glasses? Phones?)	2 mins 31s	Lee yodelling to Gabe and pretending to break glass with their voices. They discuss yodelling and Sam and others join in. Gabe says 'Let's play categories' but they end up playing 'Never have I ever'. Gabe and Kieron go to get lunches.

Boys Pair 1 continued:					
		2 mins 18s	Teacher leaves. Kieron asks Joey 'Have you seen the 'Pokedex' charger?' Gabe is eating and onlooking. As Kieron leaves Eddie calls him and they have a conversation about 'being banned from the swimming pool'. Kieron leaves. Teacher returns and talks to Gabe about cricket.	6 mins	Kieron returns with food. 'Never have I ever' conversation resumes. Gabe returns. Talk about test scores. Others go to get lunches. Gabe and Kieron play Pokemon 'Categories'.
				7 mins 52s	Lee returns and resumes 'Never have I ever' as if he hadn't left. Categories continues. Kieron gives up the game as lost and as he leaves joins in the Pokemon 'Categories' game now going on at the other end of the table.
				2 mins 15s	Gabe eating. End of lunch bell rings. Kieron returns to resume conversation about Pokemon with William and then goes. Gabe asks Lee about Pokemon. Adult tells them they're really late today - need to hurry.
Total: 20 mins 50s		Total: 19 mins 18s		Total: 28 mins 15s	

Appendix 14: List of all school mealtime video episodes selected for analysis with reasons for selection

Time	Content	Reason for selection
Girls 1		
3 mins 4s	GAME (HANDCLAPPING) Hand clapping game with all joining in – Natalie organising and Mimi helping at various points. All playing. Interwoven with M and N interest in Nisa’s packed lunch.	Initial choice – Game
3 mins 40s	SEATING CONVERSATION Natalie attending to conversations. Mimi (and sometimes Natalie) engaged in recurrent discussion/argument re seating with Erin and others. Afra singing. All interspersed with Natalie singing and hand clapping with Eliza. Natalie goes to get lunch. Mimi continues conversation about who sits where. Natalie returns.	Initial choice – Seating – inclusion and exclusion
1 min 35s	TALK BETWEEN MIMI AND NATALIE ABOUT MIMI’S BROTHERS PARTY Natalie and Mimi talk about M’s brother's birthday and friends; then eating and onlooking.	Initial choice – Sharing information about personal lives
4 mins 17s	TALK ABOUT SEATING AND GAME (CHINESE WHISPERS) All discuss their ideal eating group and Natalie and Karl tell Asha about Erin leaving upset. Mimi talks to Annie and Nisa about Nisa’s and her own playground injuries, interwoven with all playing ‘Chinese Whispers’	Includes conversation about seating – similarity to 2 but with dramatic leaving Another game – similar to 1. But a different game so also different
Boys 1		
7 mins 10s	GAME (NEVER HAVE I EVER) Gabe suggests playing 'Never have I ever' to Freddy. Lee returns having lost packed lunch and then leaves. Joey and Kieron return with lunches. Gabe resumes instructions for 'Never have I ever...' and they play the game. Lee returns with lunch. Kieron loses to Joey and goes to get a spoon.	Another game – similarity to 1 and 4 But a different game and one where ‘targeting is allowed’ so also different
2 mins 25s	POKEMON TALK Gabe arrives. Lee putting arm round Gabe. Gabe begins a Pokemon conversation with Kieron - 'I haven't got any Snorlaxes'. Others join in. Lee explains to Gabe how he chased off Vik. Pokemon conversation resumes.	New subject – Talk about a current craze.
3 mins 11s	FOOD PREFERENCES AND GOING TO FREDDY’S HOUSE Food conversations – Vegetarian, Pescatarian, Omnivore or Carnivore? – especially between Keron, Gabe and Lee. Talk about when Freddy's dog Bella stole Eddie's yogurt. Kieron sparks ‘competition’ for, ‘How many times I've been to Freddy's house’.	New subjects – Talk reflects current issues of concern; also shared past experience with and competition to affiliate

Girls 2		
7 mins 20s	<p>GAME (CHINESE WHISPERS)</p> <p>Monique and others restarting Chinese whispers with attempts to show up Chloe. Adult comes to offer bread. Leaking water cup. Whispers continue including 'Holy Moley Macaroni'. Hope leaves.</p>	<p>Same game as 4 but with particular ganging up on one girl – useful to compare with other games in other groups (1,3,5)</p>
8 mins 51s	<p>SURREAL HUMOROUS FOOD TALK</p> <p>Monique returns and asks, 'Where did Hope go?' Chloe returns singing. Eating and talking. Both M and C contribute to discussion of optical illusion (on wall display) started by Holly. They talk about Erin's bean charm; 'Poor potatoes' and surreal talk around chickens and food. An attempt to resume 'Chinese Whispers'. Being hurried by teacher to finish.</p>	<p>New subjects – Responding to a wall display; and a surreal and humorous dialogue about food.</p> <p>Food talk as in 7</p>
3 mins 40s	<p>SHARING PERSONAL INFORMATION AND PLANNING A PARTY</p> <p>Christmas talk. Talk about Chloe's brother and Monique's other house. Discussing possible party. Chloe dabs crazily and Mimi moves away. A humorous conversation between Chloe and Karl.</p>	<p>New subject – Sharing personal information and discussing future out of school activity.</p> <p>Engaging in a current craze – so similar but different to 5; And a humorous conversation similar to 9</p>
Boys 2		
5 mins 2s	<p>DEALING WITH ADULTS, SERVING WATER, POKEMON CHARACTERS AND TAKING CARDS FROM YOUNGER CHILDREN</p> <p>Joey says adult eventually told him to go away; Lee talks about Logan's brain; Lee serves water; Eddie continues talk about Pokemon cards; Lee talks about older kids taking Pokemon cards from little Jake. Lee says 'I am Yellow' (referring to Pokemon game) and Eddie talks about Pixelmon.</p>	<p>New subjects/activity – discussion of adults; serving water; issue of concern – 'stealing' from younger kids</p> <p>Talk about a current craze and share information– Pokemon as in 6</p>
4 mins 50s	<p>CLASSIC FOOTBALL GOALS AND A DISCUSSION OF YOUTUBE VIDEOS</p> <p>Lee, Freddy and Joe discuss their football teams. Eddie asks – 'Have you seen that save Suarez did?' They discuss this and other notable football saves. Kieron dabbing. They all discuss Remy's YouTube videos. Lee goes to get water.</p>	<p>Talk about interests and share information– similar to 6 and 11 but different topic of football.</p> <p>Shared past experience of the videos – so similar to 7 but more inclusive of whole group than competitive.</p> <p>Dabbing as in 10</p>

Boys 2 continued:		
3 mins 47s	<p>EVICTING SOMEONE FROM THE TABLE</p> <p>Seating with Lee arriving and arguing with Vik about V sitting there. Eddie arrives and also tells him to move. They argue for having their best friends sitting with them. They vote on Vik leaving and he leaves. They call Joey to join them but he then leaves. Silently, they watch where Joey and Vik have gone.</p>	<p>Exclusion from group with argument as in 2 and dramatic leaving as in 2</p>
8 mins 2s	<p>TALK ABOUT NOSEBLEEDS, POKEMON AND HELPING IN THE DINING ROOM</p> <p>Remy asks Eddie about reasons for his nosebleed. Freddy leaves. Then they discuss sleepovers at Freddy's house. Remy leaves. Only Lee and Eddie left. Eddie calls Vik. Silent eating. Eddie goes and tells Vik he can come on the table if he wants. Silent eating. Pokemon discussion. Lee tells Eddie he's going to stay behind and do all the chairs to get a well-done card. Lee leaves followed shortly after by Eddie.</p>	<p>New subjects – sharing personal information about nosebleed – but forced by the physical event rather than volunteering info as in 3 and 10; remorse about exclusion in 13?; attitudes to helping adults More Pokemon as in 11 and 6.</p>
Girls 3		
5 mins	<p>SHARING TREATS, MIMICKING, TRYING ON SIENNA'S GLASSES AND PLAYFIGHTING</p> <p>Thea teasing Ana about how she says 'Roxyyyyy'. Thea copies Roxy in giving comedy 'tour' of the food. Served bread by Thandi. Cleo dancing about and trying on glasses - and then others. Thea and Ana competing with others to try the glasses on.</p>	<p>New forms of interaction – sharing and serving food; mimicking others (two different ways); playfighting</p> <p>A kind of game – but this time made up – so variation from 1,3,5</p>
3 mins 34s	<p>MY BIRTHDAY TALK, SHARING TREATS AND SOME GOSSIP</p> <p>Thandi sharing out her fruit strip. Ana asking Thandi for most, 'Cause it's my birthday.' Ana protests against repeat Happy Birthday singing. Thea and Maia continue talking about Ivan. Ana then others lobbying Thandi for her 'fruit strip'. Gossip - complaining about Thandi and problems with her in P.E. They won't tell Sienna the gossip ('It's a really long story.') Maia tells them 'Don't say anything.' They leave.</p>	<p>New forms of interaction – embarrassment (?) at singing of Happy Birthday; covert gossip</p> <p>Sharing food as in 15</p>
2 mins 36s	<p>SHARING INFORMATION ABOUT AFTER SCHOOL (THEA ONLY)</p> <p>Thea arrives, Thandi says she's got 'Chewy Bears' and Thea and Thandi discuss going to Thea's house after school. Thea explaining that Ana is helping teacher and explaining arrangements for after school to Maia.</p>	<p>New subjects – discussing future plans</p> <p>Also sharing information about personal life as in 3</p>

Girls 3 continued:		
4 mins 42s	DISCUSSION OF SETTING UP SCIENCE ACTIVITIES THIS AFTERNOON (ANA ONLY) Ana arrives and sits with Nancy - some younger girls at other end of the table. Ana talks to Nancy about setting up their class for a science experiment. Ivka joins and they tell her about the afternoon activities. Talk about why they were chosen to help set up - and whether it was fair.	New subjects/forms of interaction – Talk about classroom activities; mutual self-congratulation and challenges to that
Boys 3		
4 mins 25s	TENSION BETWEEN FRIENDS AND A FOOD FIGHT Jake shows Vinny and Barney his new shoes. V is curt in response to Barney's joking. Vinny and Barney listen as Jake explains reason for commotion at next table - Santo has been rubbing pudding on Gregor's face. Barney and Jimmy discuss food thrown from the other table. Vinny says, 'I dare you to eat it.' Chucking of the floor food between tables. Barney puts 'floor' food in the bin.	New subjects/forms of interaction – Tension between friends; food fighting and related conversation
2 mins 33s	ONGOING TENSION, TALK ABOUT 'EGGS' AND TEASING RE PLAYING WITH A GIRL Barney arrives and apologises for being late. Vinny seems annoyed saying 'cause you're always with Jimmy'. Barney says they were looking after their eggs. Jimmy arrives and Barney talks to him about the eggs. Jake teasing B by telling Vinny and Laine about what Gina said to Barney about playing a game in the playground.	Talk about classroom activity (eggs) – similarity to 18 ; ongoing tension between friends as in 19 ; teasing re playing across gender
2 mins 44s	DIALOGUE ABOUT CHIPSTICKS AND DISCUSSING A WALL DISPLAY Vinny says to Emlyn, 'You've been eating those 'Chipsticks' [crisps] for 63 billion years.' V, B and Emlyn discuss how old Chipsticks are – jokey conversation. Barney looks at poster on wall and says, 'That's Hitler's Dad.' Vinny and others are holding their hands in triangles to look through and comment on what 'fits' in their 'windows'. They all discuss poster on the wall.	A comedy dialogue about food similarity to 9 . Discussing wall display as in 9 – although different topic and more lively, active responses.
Girls 4		
4 mins 11s	DISCUSS WHAT HAPPENED YESTERDAY AND FRIENDSHIPS WHEN YOUNGER Lydia discovers Flo and Alice told Ted she loved him. Lydia and Martha discuss whether they were friends with Flo in Year 2 then how Lydia and Martha became friends - invitation to a party. Discuss their nicknames. Flo returns to the topic of the trick they played on Ted – all listen.	New subjects - Overt discussion of friendship (but reminiscence – so element of shared past experience as in 12) Discussion of cross-gender interaction as in 20

Girls 4 continued:		
7 mins 31s	<p>PACKED LUNCH TALK, APPLE PIE AND PANCAKES</p> <p>Showing each other food from packed lunches. Martha shares note from her mum with the others. They share oranges and apple tart. All talking about how often they eat pancakes and then more packed lunch talk. Martha and others try to get Alice to try Martha's apple pie. Alice leaves.</p>	<p>New subjects - Packed lunch food talk</p> <p>Food sharing as in 15 and 16</p> <p>Sharing information about personal lives (pancakes) as in 3 and 17</p>
6 mins 31s	<p>TALKING ABOUT LYDIA'S BIRTHDAY PRESENTS</p> <p>Martha asks Lydia, 'Why don't you have a big pink birthday girl badge? Alice comes up with a scenario of a boy and a girl kissing in the bushes. They speculate who it could be suggesting different couples from kids in their year. They all discuss Lydia's dad's name. Martha asks Lydia what she got for her birthday. Then L and M talk to Carina about it being rude to ask how much presents cost.</p>	<p>New subjects – Birthday presents including politeness rules</p> <p>Talk about cross gender encounters – as in 20 and 22</p> <p>Discussing personal information (Dad's name) as in 3, 17 and 23.</p>