Appendices and publications

Samantha Meyer
BA (Honours)

July 2010

Discipline of Public Health
School of Medicine
Flinders University
Adelaide, South Australia

APPENDICES

APPENDIX 1: Information sheet for lower risk participants

A PhD candidate from the Department of Public Health at Flinders University is undertaking research regarding patients who are currently on medication to reduce their cholesterol levels and their trust in sources of dietary information (e.g. dietary guidelines, dietitians, healthcare professionals).

Purpose of the research

The purpose of this research project is to determine the factors that affect a patient's decisions about following dietary recommendations. We have asked your general practitioner (GP) to distribute this letter to their patients who are on medications for lowering cholesterol.

What will you be asked to do?

I am conducting interviews with patients who have high cholesterol, aged 18 and older. The interviews will last no longer than 2 hours and will be conducted in your home or another place of your choosing. We will be discussing your feelings about the dietary recommendations provided by your GP and any potential barriers or facilitators that you foresee in your decision to follow them.

What types of things will we be talking about?

We will be discussing the following topics:

- The dietary recommendations you have been given
- How you feel about the dietary recommendations and any barriers you foresee in following them
- How you feel about sources of dietary advice (dietitians, food guides etcetera)
- Your thoughts/feelings about the Australian medical system

Benefits of the research

High cholesterol affects a large proportion of Australians. One of the ways of reducing high cholesterol is through healthy eating, which for many people, may mean making changes to their current diet.
Current research suggests that a lack of patient trust in sources of dietary information (Australian food guide, dietitians etcetera) may be a factor in a patient's decision not to follow suggested dietary changes. This research project may provide information regarding why patients do not have trust in sources of dietary information, and the necessary changes that need to be made to improve or increase patient trust. By determining the factors that influence patient trust, we may be able to learn how patient trust is damaged, and potentially find ways of re-building trust so that we can facilitate positive health outcomes.
Upon completion of this research, I will summarise my findings and create a poster that will be displayed at your general practitioners office.

Risks

This research will require a maximum of two hours of your time. Given that we may be discussing issues regarding your health, there is potential that this research may cause you anxiety or distress. If you find that this is becoming an issue during your participation, you are free to withdraw from the project at any time and are free to decline to answer particular questions. The following support services are free of charge and may be consulted if required.

Heart Support Australia

Central Adelaide – 8337 2682

Western Adelaide – 8447 6008

The Salvation Army Counselling Service

1300 36 36 22

Blues News Lifeline

13 1114

How will confidentiality be maintained?

Participation in the interviews is voluntary and you are free to not answer a question, to end the interview at any time, or to withdraw your data at any stage of the research project. We will treat any information provided in the strictest confidence and no-one will be individually identifiable in the thesis or future publications from this research project. To ensure your confidentiality we will maintain a central database of participants that is only available to me and my PhD supervisors (Paul Ward, John Coveney and Wendy Rogers). I will ask you to choose a pseudonym. The information available to my supervisors will be de-identified (i.e. with pseudonyms). The recording and transcript of your interview will be labelled with this pseudonym to protect your identity. If you choose to participate, I will not tell your GP or any of the staff at their clinic. Your participation will be kept confidential.

How can I find out more information?

If you are interested in participating in this research project, please contact Samantha Meyer by telephone 8204 6385 (office), by fax 8204 5693, or by email meye0035@flinders.edu.au.

Any enquiries you may have concerning this project should be directed to Paul Ward by telephone 8204 6202, by fax 8204 5693 or e-mail paul.ward@flinders.edu.au.
This research has been approved by the Social and Behavioural Ethics Committee at Flinders University. If you have any concerns about the manner in which the interview has been conducted you are advised to contact the Secretary of the Ethics Committee by telephone at (08) 8201 5962 or by email sandy.huxtable@flinders.edu.au

APPENDIX 2: Information sheet for lower risk participants – Playford Community Centre

A PhD candidate from the Department of Public Health at Flinders University is undertaking research regarding patients who are currently on medication to reduce their cholesterol levels and their trust in sources of dietary information (e.g. dietary guidelines, dietitians, healthcare professionals).

Purpose of the research

The purpose of this research project is to determine the factors that affect individual's decisions about following dietary recommendations.

What will you be asked to do?

I am conducting interviews with people who have high cholesterol, aged 18 and older. The interviews will last no longer than 2 hours and will be conducted in your home or another place of your choosing. We will be discussing your feelings about the dietary recommendations provided by your GP and any potential barriers or facilitators that you foresee in your decision to follow them.

What types of things will we be talking about?

We will be discussing the following topics:

- The dietary recommendations you have been given
- How you feel about the dietary recommendations and any barriers you foresee in following them
- How you feel about sources of dietary advice (dietitians, food guides etcetera)
- Your thoughts/feelings about the Australian medical system

Benefits of the research

High cholesterol affects a large proportion of Australians. One of the ways of reducing high cholesterol is through healthy eating, which for many people, may mean making changes to their current diet.
Current research suggests that a lack of patient trust in sources of dietary information (Australian food guide, dietitians etcetera) may be a factor in a patient's decision not to follow suggested dietary changes. This research project may provide information regarding why patients do not have trust in sources of dietary information, and the necessary changes that need to be made to improve or increase patient trust. By determining the factors that influence patient trust, we may be able to learn how patient trust is damaged, and potentially find ways of re-building trust so that we can facilitate positive health outcomes.
Upon completion of this research, I will summarise my findings and create a poster that will be displayed at your general practitioners office.

Risks

This research will require a maximum of two hours of your time. Given that we may be discussing issues regarding your health, there is potential that this research may cause you anxiety or distress. If you find that this is becoming an issue during your participation, you are free to withdraw from the project at any time and are free to decline to answer particular questions. The following support services are free of charge and may be consulted if required.

Heart Support Australia

Central Adelaide – 8337 2682

Western Adelaide – 8447 6008

The Salvation Army Counselling Service

1300 36 36 22

Blues News Lifeline

13 1114

How will confidentiality be maintained?

Participation in the interviews is voluntary and you are free to not answer a question, to end the interview at any time, or to withdraw your data at any stage of the research project. We will treat any information provided in the strictest confidence and no-one will be individually identifiable in the thesis or future publications from this research project. To ensure your confidentiality we will maintain a central database of participants that is only available to me and my PhD supervisors (Paul Ward, John Coveney and Wendy Rogers). I will ask you to choose a pseudonym. The information available to my supervisors will be de-identified (i.e. with pseudonyms). The recording and transcript of your interview will be labelled with this pseudonym to protect your identity. If you choose to participate, I will not tell any members of the Playford community centre or any of their staff. Your participation will be kept confidential.

How can I find out more information?

If you are interested in participating in this research project, please contact Samantha Meyer by telephone 8204 6385 (office), by fax 8204 5693, or by email meye0035@flinders.edu.au.

Any enquiries you may have concerning this project should be directed to Paul Ward by telephone 8204 6202, by fax 8204 5693 or e-mail paul.ward@flinders.edu.au.

This research has been approved by the Social and Behavioural Ethics Committee at Flinders University. If you have any concerns about the manner in which the interview has been conducted you are advised to contact the Secretary of the Ethics Committee by telephone at (08) 8201 5962 or by email sandy.huxtable@flinders.edu.au

---

APPENDIX 3: Information sheet for higher risk participants

A PhD candidate from the Department of Public Health at Flinders University is undertaking research regarding patients with coronary heart disease (CHD) and their trust in sources of dietary information (e.g. dietary guidelines, dietitians, healthcare professionals).

Purpose of the research

The purpose of this research project is to determine the factors that affect coronary heart disease patients' decisions about following dietary recommendations. We have asked your cardiac rehabilitation coordinator to distribute this letter to participants of the cardiac rehabilitation program.

What will you be asked to do?

I am conducting interviews with CHD patients aged 18 and older. The interviews will last no longer than 2 hours and will be conducted in your home or another place of your choosing. We will be discussing your feelings about the dietary recommendations provided by your healthcare professional and any potential barriers or facilitators that you foresee in your decision to follow them.

What types of things will we be talking about?

We will be discussing the following topics:

- The dietary recommendations you have been given
- How you feel about the dietary recommendations and any barriers you foresee in following them
- How you feel about sources of dietary advice (dietitians, food guides etcetera)
- Your thoughts/feelings about the Australian medical system

Benefits of the research

Coronary heart disease affects 3.5 million Australians. One of the ways of reducing the risks of CHD is through healthy eating, which for many people may mean making changes to their current diet.
Current research suggests that a lack of patient trust in sources of dietary information (Australian food guide, dietitians etcetera) may be a factor in a patient's decision not to follow suggested dietary changes. This research project may provide information regarding why patients do not have trust in sources of dietary information, and the necessary changes that need to be made to improve or increase patient trust. By determining the factors that influence patient trust, we may be able to learn how patient trust is damaged, and potentially find ways of re-building trust so that we can facilitate positive health outcomes.

Upon completion of this research, I will summarise my findings and create a poster that will be displayed at the hospital where your cardiac rehabilitation program is run.

Risks

This research will require a maximum of two hours of your time. Given that we may be discussing issues regarding your health, there is potential that this research may cause you anxiety or distress. If you find that this is becoming an issue during your participation, you are free to withdraw from the project at any time and are free to decline to answer particular questions. The following support services are free of charge and may be consulted if required.

Heart Support Australia

Central Adelaide – 8337 2682

Western Adelaide – 8447 6008

The Salvation Army Counselling Service

1300 36 36 22

Blues News Lifeline

13 1114

How will confidentiality be maintained?

Participation in the interviews is voluntary and you are free to not answer a question, to end the interview at any time, or to withdraw your data at any stage of the research project. We will treat any information provided in the strictest confidence and no-one will be individually identifiable in the thesis or future publications from this research project. To ensure your confidentiality we will maintain a central database of participants that is only available to me and my PhD supervisors (Paul Ward, John Coveney and Wendy Rogers). I will ask you to choose a pseudonym. The information available to my supervisors will be de-identified (i.e. with pseudonyms). The recording and transcript of your interview will be labelled with this pseudonym to protect your identity. If you choose to participate, I will not tell your cardiac rehabilitation coordinator or any of the staff within the hospital or program. Your participation will be kept confidential.

How can I find out more information?

If you are interested in participating in this research project, please contact Samantha Meyer by telephone 8204 6385 (office), by fax 8204 5693, or by email meye0035@flinders.edu.au.

Any enquiries you may have concerning this project should be directed to Paul Ward by telephone 8204 6202, by fax 8204 5693 or e-mail paul.ward@flinders.edu.au.

This research has been approved by the Social and Behavioural Ethics Committee at Flinders University. If you have any concerns about the manner in which the interview has been conducted you are advised to contact the Secretary of the Ethics Committee by telephone at (08) 8201 5962 or by email sandy.huxtable@flinders.edu.au

---

APPENDIX 4: Letter of introduction for higher risk participants

Dear Sir/Madam/Name

This letter is to introduce Samantha Meyer who is a PhD student in the Department of Public Health, School of Medicine at Flinders University. She will produce her student card, which carries a photograph, as proof of identity.

She is undertaking research concerning patients with coronary heart disease (CHD) and their trust in sources of dietary information (dietary guidelines, dietitians, healthcare professional etcetera). This research will eventually lead to the production of a thesis or other publications.

She would be most grateful if you would volunteer to assist in this project by granting an interview which covers certain aspects of this topic. No more than 2 hours on one occasion would be required.

Be assured that any information provided will be treated in the strictest confidence and none of the participants will be individually identifiable in the resulting thesis, report or other publications. You are, of course, entirely free not to participate in this study, and if you decide to participate, you are entirely free to discontinue your participation at any time or to decline to answer particular questions.

Since she intends to make a tape recording of the interview, she will seek your consent to record the interview and to use the recording or a transcription in preparing the thesis report or other publications, on the condition that your name or identity is not revealed.

Any enquiries you may have concerning this project should be directed to me Paul Ward, at the address given above or by telephone on (8204 6202), fax (8204 5693) or e-mail paul.ward@flinders.edu.au.

Thank you for your attention.

Yours sincerely,

Paul Ward

APPENDIX 5: Letter of introduction for GP clinics

Dear Sir/Madam/Name

This letter is to introduce Samantha Meyer who is a PhD student in the Department of Public Health, School of Medicine at Flinders University. She will produce her student card, which carries a photograph, as proof of identity.

She is undertaking research concerning patients with high cholesterol, and their trust in sources of dietary information (dietary guidelines, dietitians, healthcare professional etcetera). This research will eventually lead to the production of a thesis or other publications.

She would be most grateful if you would volunteer to assist in this project by granting an interview which covers certain aspects of this topic. No more than 2 hours on one occasion would be required.

Be assured that any information provided will be treated in the strictest confidence and none of the participants will be individually identifiable in the resulting thesis, report or other publications. You are, of course, entirely free not to participate in this study, and if you decide to participate, you are entirely free to discontinue your participation at any time or to decline to answer particular questions.

Since she intends to make a tape recording of the interview, she will seek your consent to record the interview and to use the recording or a transcription in preparing the thesis report or other publications, on the condition that your name or identity is not revealed.

Any enquiries you may have concerning this project should be directed to me Paul Ward, at the address given above or by telephone on (8204 6202), fax (8204 5693) or e-mail paul.ward@flinders.edu.au.

Thank you for your attention.

Yours sincerely,

Paul Ward

APPENDIX 6: Consent form for qualitative participants

CONSENT FORM FOR PARTICIPATION IN RESEARCH

I ….....

being over the age of 18 years hereby consent to participate as requested in the Letter of Introduction for the research project on patient trust.

1. I have read the information provided.
2. Details of procedures and any risks have been explained to my satisfaction.
3. I agree to audio recording of my information and participation.
4. I am aware that I should retain a copy of the Information Sheet and Consent Form for future reference.
5. I understand that:
    - I may not directly benefit from taking part in this research.
    - I am free to withdraw from the project at any time and am free to decline to answer particular questions.
    - While the information gained in this study will be published as explained, I will not be identified, and individual information will remain confidential.
    - Whether I participate or not, or withdraw after participating, will have no effect on any treatment or service that is being provided to me.
    - I may ask that the recording/observation be stopped at any time, and that I may withdraw at any time from the session or the research without disadvantage.
6. I agree to the tape/transcript being made available to Samantha Meyer's supervisory team on condition that my identity is not revealed
7. I have had the opportunity to discuss taking part in this research with a family member or friend.

Participant's signature……Date……...

I certify that I have explained the study to the volunteer and consider that she/he understands what is involved and freely consents to participation.

Researcher's name…….....

Researcher's signature……..Date……

NB: Two signed copies should be obtained.

APPENDIX 7: Interviewee demographics questionnaire

If you are interested in participating in this study, kindly complete this survey prior to our interview. We will go through this survey together when we meet for our interview. You are free to not answer any of the following questions. Also, you are more than welcome to not discuss your answers at our interview. Thank you in advance.

---

1. Gender

Tick one box

Male .....❑1
Female...❑2

2. Suburb…… *(Please specify)*
Town……*(Please specify)*
Postcode…… *(Please specify)*

3. Age:…….. *(Please specify)*

4. Education
What is the **highest level of education** that you have completed?

Tick one box

University qualification .....❑1
TAFE or technical qualification .....❑2
Secondary School.....❑3
Primary School.....❑4

5. Occupation …….. *(Please specify)*

6. What is the annual income received by everyone in your household BEFORE TAX in the last financial year?

Per year	
0 - $14,999	❑1
$15,000 - $29,999	❑2
$30,000 - $44,999	❑3
$45,000 - $59,999	❑4
$60,000 - $74,999	❑5
$75,000 - $89,999	❑6
$90,000 - $104,999	❑7
$105,000 - $119,999	❑8
$120,000 - $134,999	❑9
$135,000 - $149,999	❑10
$150,000 or more	❑11

APPENDIX 8: Request for assistance from GPs

Dear Sir/Madam/Name

This letter is to introduce Samantha Meyer who is a PhD student in the Department of Public Health, School of Medicine at Flinders University. She has recently obtained approval from the Social and Behavioural Research Ethics Committee at Flinders and is about to begin recruitment for her data collection.

Samantha is requesting your assistance in recruiting patients for her doctoral research, which is about patient trust in advice, not just from GPs, but from a range of professionals and other sources of information. She will be interviewing patients from GPs in addition to cardiac rehabilitation programs. All that she asks is that you distribute an envelope (that she will provide) to any patients of yours who have elevated cholesterol (and currently being prescribed medication to reduce this, such as a statin) and who have not had any form of cardiac event. The envelopes she is asking you to distribute are enclosed with this letter - each envelope includes a letter of introduction, a letter of information regarding the study, a consent form, and a short survey regarding personal characteristics of the potential participant. These envelopes may be distributed to patients upon consultation or posted directly to relevant addresses (from the list of patients currently being prescribed statins). If necessary, Samantha will provide her time to assist your staff in addressing/mailing these letters and she will of course provide postage. It would be very much appreciated if you would assist her in her recruitment process.

Any enquiries you may have concerning this project should be directed to me Paul Ward, at the address given above or by telephone on (7221 8415), fax (7221 8424) or e-mail paul.ward@flinders.edu.au.

Thank you for your attention.

Yours sincerely,

Paul Ward

APPENDIX 9: General Practice Network South News Ad

Request for assistance from General Practitioners

Samantha Meyer is a PhD student at Flinders University and is requesting assistance in recruiting patients for her doctoral research, which is about patient trust in dietary advice, not just from GPs, but from a range of professionals and other sources of information. She will be interviewing patients from GPs in addition to cardiac rehabilitation programs. All that she asks is that you distribute an envelope (that she will provide) to any patients of yours who have elevated cholesterol (and currently being prescribed medication to reduce this, such as a statin) and who have not had any form of cardiac event. The envelope she is asking you to distribute includes a letter of introduction, a letter of information regarding the study, a consent form, and a short survey regarding personal characteristics of the potential participant. These envelopes may be distributed upon consultation with patients currently being prescribed a statin. It would be very much appreciated if you would assist her in her recruitment process.

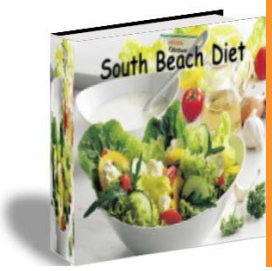
If you would be willing to assist Samantha, please contact her by telephone on (7221 8445), fax (7221 8424) or email samantha.meyer@flinders.edu.au.

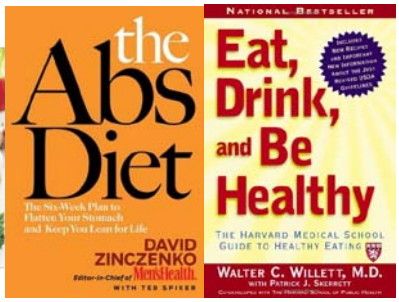
Any enquiries you may have concerning this project should be directed to me Paul Ward, by telephone on (7221 8415), fax (7221 8424) or e-mail paul.ward@flinders.edu.au.

APPENDIX 10: Flyer for Playford Recruitment

RESEARCH PARTICPANTS WANTED

Do you feel that you are confronted with too much information about diet and healthy eating?





Where do you get information about what foods you should be eating?

How do you make choices about what foods to eat?

A study is being conducted at Flinders University and we want to interview YOU.

If you are interested in participating in this research project, please contact Samantha

Meyer by telephone 7221 8445 (office) or by email meye0035@flinders.edu.au.

APPENDIX 11: Data that did not meet the assumption (chi square)

The following data have not been included in the results section. None of the following tests met the data assumption because one or more cells did not meet the expected cell count of five. For each of these tests, categories were collapsed but it was found that no suitable collapse would enable the data to meet the assumption. The data are organised according to the survey question (dependent variable). The independent variables that could not be collapsed are then provided.

Trusting characteristics

1. *If you had a health problem that needed immediate attention and your usual doctor was not available, how much would the following factors influence your decision to trust a doctor you have never seen before?*
    a. *They are wearing a white coat*

Respondents were asked to what extent a doctor wearing a white coat would influence their trust in a doctor they have never seen before. When investigating the association between age and the extent to which a doctor wearing a white coat influences trust, five cells were found to have an expected cell count less than five. After collapsing the age categories so that the lowest was 18–34 and the highest was 65+, no suitable collapse could be found to help the data meet the assumption (Table A1).

Table A1: Association between age and the extent to which a doctor wearing a white coat influences trust

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.131[a]	8	.331
Likelihood Ratio	9.740	8	.284
Linear-by-Linear Association	0.036	1	.848
N of Valid Cases	776		

a. 5 cells (33.3%) have expected count less than 5. The minimum expected count is 0.68.

When investigating the association between overall health and the extent to which a doctor wearing a white coat influences trust, five cells were found to have an expected cell count less than 5. No suitable collapse could be found to help the data meet the assumption (Table A2).

Table A2: Association between overall health and the extent to which a doctor wearing a white coat influences trust

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.840[a]	6	.829
Likelihood Ratio	3.028	6	.805
Linear-by-Linear Association	.000	1	.994
N of Valid Cases	913		

a. 5 cells (41.7%) have expected count less than 5. The minimum expected count is 0.21.

2. *If you had a health problem that needed immediate attention and your usual doctor was not available, how much would the following factors influence your decision to trust a doctor you have never seen before?*
    a. *They appear to be younger than 40*

Respondents were asked to what extent a doctor appearing to be younger than 40 would influence their trust in a doctor they have never seen before. For the independent variable of overall health (Table A3), no suitable collapses could be made to help meet the assumptions.

Table A3: Association between overall health and the extent to which a doctor appearing to be younger than 40 influences trust

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.171[a]	6	.305
Likelihood Ratio	5.067	6	.535
Linear-by-Linear Association	2.125	1	.145
N of Valid Cases	909		

a. 4 cells (33.3%) have expected count less than 5. The minimum expected count is 0.49.

When investigating the association between overall health and the extent to which a doctor appearing to be younger than 40 influences trust, four cells were found to have an expected cell count less than 5. The categories ‘trust them a lot ‘and ‘trust them somewhat’ were collapsed but no suitable collapse could be found to help the data meet the assumption.

Trust in individuals

1. *How much do you trust various groups of people?*
    a. *Regular doctor*

Respondents were asked to indicate how much they trust their regular doctor on a scale of 1–4, where 1 = trust them completely, 2 = trust them somewhat, 3 = do not trust them very much, and 4 = do not trust them at all. When investigating the association between age and trust in their regular doctor, eight cells were found to have an expected cell count less than 5 after collapsing variables ‘do not trust them

very much' and 'do not trust them at all', 'trust them somewhat' and 'trust them completely', as well as making the age categories 18–44 and 65+. No suitable further collapse could be found to help meet the assumption (Table A4).

Table A4: Association between age and trust in regular doctor

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	67.666[a]	14	.000
Likelihood Ratio	63.848	14	.000
Linear-by-Linear Association	51.611	1	.000
N of Valid Cases	834		

a. 8 cells (33.3%) have expected count less than 5. The minimum expected count is 0.37.

When investigating the association between IRSD quintile and trust in their regular doctor, five cells were found to have an expected cell count less than 5. After collapsing variables 'do not trust them very much' and 'do not trust them at all', no collapse could be found to help the data meet the assumption (Table A5).

Table A5: Association between IRSD quintile and trust in regular doctor

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.748[a]	8	.163
Likelihood Ratio	11.770	8	.162
Linear-by-Linear Association	0.966	1	.326
N of Valid Cases	1004		

a. 5 cells (33.3%) have expected count less than 5. The minimum expected count is 3.33.

When investigating the association between length of time seeing their current GP and trust in their regular doctor, two cells were found to have an expected cell count less than 5. After collapsing variables 'do not trust them very much' and 'do not trust them at all', no collapse could be found to help the data meet the assumption (Table A6).

Table A6: Association between length of time seeing current GP and trust in regular doctor

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	54.811[a]	6	.000
Likelihood Ratio	54.972	6	.000
Linear-by-Linear Association	50.749	1	.000
N of Valid Cases	990		

a. 2 cells (16.7%) have expected count less than 5. The minimum expected count is 2.22.

2. *How much do you trust various groups of people?*
    a. *Family*

Respondents were asked to indicate how much they trust their family, on a scale of 1–4, where 1 = trust them completely, 2 = trust them somewhat, 3 = do not trust them very much, and 4 = do not trust them at all. When investigating the association between age and trust in their family, 17 cells were found to have an expected cell count less than 5. After collapsing variables 'do not trust them very much' and 'do not trust them at all', no suitable further collapse could be found to help meet the assumption (Table A7).

Table A7: Association between age and trust in family members

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	47.972[a]	21	.001
Likelihood Ratio	46.126	21	.001
Linear-by-Linear Association	14.475	1	.000
N of Valid Cases	848		

a. 17 cells (53.1%) have expected count less than 5. The minimum expected count is 0.08.

When investigating the association between IRSD quintile and trust in their family, one cell was found to have an expected cell count less than 5. After collapsing variables 'do not trust them very much' and 'do not trust them at all', no suitable collapse could be found to help the data meet the assumption (Table A8).

Table A8: Association between IRSD quintile and trust in family

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.269[a]	8	.508
Likelihood Ratio	7.904	8	.443
Linear-by-Linear Association	1.499	1	.221
N of Valid Cases	1018		

a. 1 cell (6.7%) has expected count less than 5. The minimum expected count is 4.76.

When investigating the association between length of time seeing their current GP and trust in their family, two cells were found to have an expected cell count less than 5. After collapsing variables 'do not trust them very much' and 'do not trust them at all', no suitable collapse could be found to help the data meet the assumption (Table A9).

Table A9: Association between length of time seeing the respondent's current GP and trust in family

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.168[a]	6	.226
Likelihood Ratio	7.649	6	.265
Linear-by-Linear Association	1.387	1	.239
N of Valid Cases	988		

a. 2 cells (16.7%) have expected count less than 5. The minimum expected count is 3.39.

3. *How much do you trust various groups of people?*
    a. *Local politician*

Respondents were asked to indicate how much they trust their local politician on a scale of 1–4, where 1 = trust them completely, 2 = trust them somewhat, 3 = do not trust them very much, 4 = do not trust them at all. When investigating the association between age and trust in their local politician, one cell was found to have an expected cell count less than 5. After collapsing variables 'trust them completely' and 'trust them somewhat', collapsing 'do not trust them very much' and 'do not trust them at all' as well as collapsing the original age categories so that the highest cohort was 75+, no suitable further collapse could be found to help meet the assumption (Table A10).

Table A10: Association between age and trust in local politicians

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	30.643[a]	6	.000
Likelihood Ratio	26.634	6	.000
Linear-by-Linear Association	12.924	1	.000
N of Valid Cases	631		

a. 1 cell (7.1%) has expected count less than 5. The minimum expected count is 1.89.

Trust in organisations

1. *How much do you trust the following organisations?*
    a. *Your government*

Respondents were asked to indicate how much they trust their government on a scale of 1–4, where 1 = trust them completely, 2 = trust them somewhat, 3 = do not trust them very much, 4 = do not trust them at all. When investigating the association between overall health and trust in their government, one cell was found to have an expected cell count less than 5. After collapsing variables 'trust them

somewhat' and 'trust them completely' as well as 'bad' and 'very bad' health, no suitable collapse could be found to help meet the data assumption.

Table A11: Association between overall health and trust in the government

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	14.033[a]	6	.029
Likelihood Ratio	14.149	6	.028
Linear-by-Linear Association	8.841	1	.003
N of Valid Cases	996		

a. 1 cell (8.3%) has expected count less than 5. The minimum expected count is 4.61.

APPENDIX 12: Table of variables transformed to be dichotomous

Table A12: Variables transformed to be dichotomous

Dependent Variable	Initial variable coding	Dichotomous variable
How much do you trust various groups of people? (all variables)	Scale of 11–44 with 44 being the least trusting	11– 27.5 trusts individuals
		27.6–44 distrusts individuals
How much do you trust the following organisations or institutions? (all variables)	Scale of 7–28 with 28 being the least trusting	7–17.5 trusts organisations
		17.6–28 distrusts organisations
How much do you trust various groups of people? **a. Regular doctor** **b. Doctors in general** **c. A doctor you are seeing for the first time**	Scale of 3–12 with 12 being the least trusting	3–7.5 trusts doctors
		7.6–12 distrusts doctors
How much do you trust various groups of people? **a. Doctors in general**	1.Trust them completely 2. Trust them somewhat	1 Trusts doctors in general
	3. Do not trust them very much 4. Do not trust them at all	0 Distrusts doctors in general
How much do you trust various groups of people? **a. A doctor you are seeing for the first time**	1. Trust them completely 2. Trust them somewhat	1 Trusts a doctor they are seeing for the first time
	3. Do not trust them very much 4. Do not trust them at all	0 Distrusts a doctor they are seeing for the first time
Have you ever doubted information from the following organisations/institutions? (all variables analysing for reflexivity)	3–6 with 3 being the most reflexive	3–4.5 Reflexive with regard to doubt in organisations/institutions
		4.6–6 Unreflexive with regard to doubt in organisations/institutions
Have you ever doubted information from the following individuals? (all variables analysing for reflexivity)	4–8 with 4 being the most reflexive	4–6 Reflexive with regard to doubt in individuals
		6.1–8 Unreflexive with regard to doubt in individuals
Have you ever doubted information from the following individuals? **a. Your family doctor**	2–4 with 2 being the most reflexive	2–3 Reflexive with regard to doubt in doctors

b. Doctors in general		3.1–4 Unreflexive with regard to doubt in doctors
How much do you trust various groups of people? (all variables analysing for reflexivity)	0–11 with 0 being the most reflexive	0–5.5 Reflexive with regard to trust in individuals
		5.6–11 Unreflexive with regard to trust in individuals
How much do you trust the following organisations? (all variables analysing for reflexivity)	0–7 with 0 being the most reflexive	0–3.5 Reflexive with regard to trust in organisations/institutions
		3.6–7 Unreflexive with regard to trust in organisations/institutions
If you had a health problem that needed immediate attention and your usual doctors was not available, how much would the following factors influence your decision to trust a doctor you have never seen before? (all variables)	8–24 with 8 indicating that all of the listed characteristics influence their trust a lot	8–16 The listed characteristics influence their trust
		16.1–24 The listed characteristics do not influence their trust
How much do you trust various groups of people? **a. Police officers**	1. Trust them completely 2. Trust them somewhat	1 Trusts police officers
	3. Do not trust them very much 4. Do not trust them at all	0 Distrusts police officers
How much do you trust various groups of people? **a. National political leader**	1. Trust them completely 2. Trust them somewhat	1 Trusts the national political leader
	3. Do not trust them very much 4. Do not trust them at all	0 Distrusts the national political leader
How much do you trust various groups of people? **a. People of another religion**	1. Trust them completely 2. Trust them somewhat	1 Trusts people of another religion
	3. Do not trust them very much 4. Do not trust them at all	0 Distrusts people of another religion
How much do you trust various groups of people? **a. People of another nationality**	1. Trust them completely 2. Trust them somewhat	1 Trusts people of another nationality
	3. Do not trust them very	0 Distrusts people of another nationality

	much 4. Do not trust them at all	
How much do you trust various groups of people? **a. Local politician**	1. Trust them completely 2. Trust them somewhat	1 Trusts their local politician
	3. Do not trust them very much 4. Do not trust them at all	0 Distrusts their local politician
How much do you trust various groups of people? **a. People you meet for the first time**	1. Trust them completely 2. Trust them somewhat	1 Trusts people they meet for the first time
	3. Do not trust them very much 4. Do not trust them at all	0 Distrusts people they meet for the first time
How much do you trust various groups of people? **a. Neighbours**	1. Trust them completely 2. Trust them somewhat	1 Trusts their neighbours
	3. Do not trust them very much 4. Do not trust them at all	0 Distrusts their neighbours
How much do you trust various groups of people? **a. Family**	1. Trust them completely 2. Trust them somewhat	1 Trusts their family
	3. Do not trust them very much 4. Do not trust them at all	0 Distrusts their family
How much do you trust the following organisations? **a. Religious organisations**	1. Trust them completely 2. Trust them somewhat	1 Trusts religious organisations
	3. Do not trust them very much 4. Do not trust them at all	0 Distrusts organisations
How much do you trust the following organisations? **a. The press**	1. Trust them completely 2. Trust them somewhat	1 Trusts the press
	3. Do not trust them very much 4. Do not trust	0 Distrusts the press

	them at all	
How much do you trust the following organisations? **a. The legal system**	1. Trust them completely 2. Trust them somewhat	1 Trusts the legal system
	3. Do not trust them very much 4. Do not trust them at all	0 Distrusts the legal system
How much do you trust the following organisations? **a. The media**	1. Trust them completely 2. Trust them somewhat	1 Trusts the media
	3. Do not trust them very much 4. Do not trust them at all	0 Distrusts the media
How much do you trust the following organisations? **a. Your government**	1. Trust them completely 2. Trust them somewhat	1 Trusts their government
	3. Do not trust them very much 4. Do not trust them at all	0 Distrusts their government
How much do you trust the following organisations? **a. United Nations**	1. Trust them completely 2. Trust them somewhat	1 Trusts the United Nations
	3. Do not trust them very much 4. Do not trust them at all	0 Distrusts the United Nations
How much do you trust the following organisations? **a. Banks**	1. Trust them completely 2. Trust them somewhat	1 Trusts banks
	3. Do not trust them very much 4. Do not trust them at all	0 Distrusts banks
If you had a health problem that needed immediate attention and your usual doctor was not available, how much would the following factors influence your decision to trust a doctor you have never seen before? **a. The way they are dressed**	1 A lot	1 The way a doctor is dressed influences their trust
	2 Somewhat	
	3 Not at all	0 The way a doctor is dressed does not influence their trust
If you had a health problem that needed immediate attention and your	1 A lot	1 The doctor seeming to be caring influences

usual doctor was not available, how much would the following factors influence your decision to trust a doctor you have never seen before? **a. They seem to be caring**	2 Somewhat	their trust
	3 Not at all	0 The doctor seeming to be caring does not influence their trust
If you had a health problem that needed immediate attention and your usual doctor was not available, how much would the following factors influence your decision to trust a doctor you have never seen before? **a. They appear to be competent**	1 A lot	1 The doctor appearing to be competent influences their trust
	2 Somewhat	
	3 Not at all	0 The doctor appearing to be competent does not influence their trust
If you had a health problem that needed immediate attention and your usual doctor was not available, how much would the following factors influence your decision to trust a doctor you have never seen before? **a. They are female**	1 A lot	1 The doctor being female influences their trust
	2 Somewhat	
	3 Not at all	0 The doctor being female does not influence their trust
If you had a health problem that needed immediate attention and your usual doctor was not available, how much would the following factors influence your decision to trust a doctor you have never seen before? **a. They are male**	1 A lot	1 The doctor being male influences their trust
	2 Somewhat	
	3 Not at all	0 The doctor being male does not influence their trust

APPENDIX 13: Models for logistic regression

Table A13: *p* values for variables used in multivariate analysis

Dependent Variable	Independent variable	Significance from bivariate analysis
Generally speaking, would you say that most people can be trusted?	Presence of a chronic health condition	.009
	Overall health	.018
	IRSD quintile	.182
	Length of time with GP	.105
	Age	.001
How much do you trust various groups of people? (all variables)	Income	.000
	Length of time with GP	.168
	Age	.000
How much do you trust the following organisations or institutions? (all variables)	Presence of a chronic health condition	.004
	Overall health	.095
	Income	.154
	Age	.165
	Sex	.000
Do you think that most people would take advantage of you if they had the chance?	Presence of a chronic health condition	.005
	Overall health	.000
	IRSD quintile	.014
	Age	.004
How much do you trust various groups of people? **a. Regular doctor** **b. Doctors in general** **c. A doctor you are seeing for the first time**	IRSD quintile	.055
	Income	.002
	Length of time seeing a GP	.000
	Age	.000
How much do you trust various groups of people? **a. Doctors in general**	IRSD quintile	.227
	Income	.001
	Age	.000
	Length of time with GP	.103
	Sex	.000
How much do you trust various groups of people? **a. A doctor you are seeing for the first time**	IRSD quintile	.104
	Income	.074
	Age	.000
	Length of time with GP	.129
	Sex	.002
Have you ever requested a second opinion after receiving medical advice from a doctor?	Presence of a chronic health condition	.059
	IRSD quintile	.023
	Income	.147
	Age	.011

	Sex	.000
Have you ever doubted information from the following organisations/institutions?	Presence of a chronic health condition	.000
	Overall health	.043
	Income	.001
	Age	.015
	Length of time with GP	.165
	Sex	.148
Have you ever doubted information from the following individuals?	Presence of a chronic health condition	.011
	Income	.001
	Age	.000
	Length of time with GP	.010
	Sex	.000
Have you ever doubted information from the following individuals? **a. Your family doctor** **b. Doctors in general**	Presence of a chronic health condition	.113
	Income	.019
	Age	.000
	Length of time with GP	.000
	Sex	.000
Have you ever doubted information from the following individuals? **a. Your family doctor**	Overall health	.146
	Income	.238
	Age	.000
	Length of time seeing GP	.000
	Sex	.000
Have you ever doubted information from the following individuals? **a. Doctors in general**	Presence of a chronic health condition	.105
	Income	.000
	Age	.000
	Length of time seeing GP	.007
	Sex	.001
How much do you trust various groups of people? (all variables analysing for reflexivity with regard to trust in individuals)	Overall health	.195
	IRSD quintile	.150
	Age	.139
	Length of time seeing GP	.057
	Sex	.000
How much do you trust the following organisations? (all variables all variables analysing for reflexivity with regard to trust in organisations)	Overall health	.029
	IRSD quintile	.026
	Income	.003
	Age	.017
	Sex	.005
If you had a health problem that needed immediate attention and your usual doctor was not available, how much would the following factors influence	Presence of a chronic health condition	.092
	IRSD quintile	.005

your decision to trust a doctor you have never seen before? (all variables)	Age	.005
How much do you trust various groups of people? **a. Police officers**	Presence of a chronic health condition	.243
	Income	.027
	Length of time with current GP	.219
	Age	.005
	Sex	.002
How much do you trust various groups of people? **a. National political leader**	Overall health	.211
	Income	.152
	Age	.205
	Sex	.106
How much do you trust various groups of people? **a. People of another religion**	Presence of a chronic health condition	.033
	Income	.205
	Age	.000
	Sex	.125
How much do you trust various groups of people? **a. People of another nationality**	Overall health	.029
	Age	.101
	Sex	.063
How much do you trust various groups of people? **a. Local politician**	Presence of a chronic health condition	.047
	Overall health	.060
	IRSD quintile	.009
	Income	.015
How much do you trust various groups of people? **a. People you meet for the first time**	Overall health	.214
	Income	.217
	Length of time seeing GP	.167
	Age	.000
How much do you trust various groups of people? **a. Neighbours**	Presence of a chronic health condition	.043
	Overall health	.196
	Income	.002
	Age	.000
	Sex	.005
How much do you trust various groups of people? **a. Family**	Presence of a chronic health condition	.012
	Overall health	.000
Have you ever doubted information from the following individuals? **a. Family**	Presence of a chronic health condition	.093
	Income	.064
	Age	.000
	Sex	.000
Have you ever doubted information from the following individuals?	Presence of a chronic health	.016

a. Friends/people you know personally	condition	
	IRSD quintile	.250
	Income	.001
	Age	.000
	Sex	.121
Have you ever doubted information from the following organisations? **a. National government**	Overall health	.051
	Income	.001
	Age	.007
Have you ever doubted information from the following organisations? **a. Credit card companies**	Presence of a chronic health condition	.030
	Income	.007
	Age	.000
Have you ever doubted information from the following organisations? **a. The media**	Presence of a chronic health condition	.131
	Overall health	.006
	Income	.000
	Age	.008
How much do you trust the following organisations? **a. Religious organisations**	IRSD quintile	.015
	Income	.001
	Age	.000
	Sex	.000
How much do you trust the following organisations? **a. The press**	Presence of a chronic health condition	.139
	Overall health	.220
	Income	.008
	Age	.004
	Sex	.039
How much do you trust the following organisations? **a. The legal system**	Income	.131
	Sex	.038
How much do you trust the following organisations? **a. The media**	Presence of a chronic health condition	.120
	Income	.008
	Age	.016
	Length of time with GP	.191
	Sex	.083
How much do you trust the following organisations? **a. Your government**	IRSD quintile	.089
	Length of time with GP	.149
	Sex	.114
How much do you trust the following organisations? **a. United Nations**	Age	.087
	Sex	.000
How much do you trust the following organisations? **a. Banks**	Presence of a chronic health condition	.213

	Overall health	.068
	Income	.026
	Age	.001
	Sex	.213
If you had a health problem that needed immediate attention and your usual doctor was not available, how much would the following factors influence your decision to trust a doctor you have never seen before? **a. The way they are dressed**	Presence of a chronic health condition	.076
	Overall health	.118
	IRSD quintile	.003
	Income	.034
	Age	.028
	Sex	.009
If you had a health problem that needed immediate attention and your usual doctor was not available, how much would the following factors influence your decision to trust a doctor you have never seen before? **a. They seem to be caring**	IRSD quintile	.028
	Income	.029
	Age	.001
	Length of time with GP	.075
	Sex	.000
If you had a health problem that needed immediate attention and your usual doctors was not available, how much would the following factors influence your decision to trust a doctor you have never seen before? **a. They appear to be competent**	Overall health	.069
	IRSD quintile	.000
	Income	.000
	Age	.000
	Length of time with GP	.019
	Sex	.000
If you had a health problem that needed immediate attention and your usual doctors was not available, how much would the following factors influence your decision to trust a doctor you have never seen before? **a. They appear to be older than 40**	Income	.033
	Age	.000
	Length of time with GP	.023
If you had a health problem that needed immediate attention and your usual doctor was not available, how much would the following factors influence your decision to trust a doctor you have never seen before? **a. They appear to be younger than 40**	Age	.007
	Income	.014
If you had a health problem that needed immediate attention and your usual doctor was not available, how much would the following factors influence your decision to trust a doctor you have never seen before? **a. They are female**	Presence of a chronic health condition	.081
	IRSD quintile	.023
	Income	.000
	Age	.050
	Sex	.006
If you had a health problem that needed immediate attention and your usual	Income	.001
	Age	.125

doctor was not available, how much would the following factors influence your decision to trust a doctor you have never seen before? **a. They are male**	Sex	.172
How much do you trust various groups of people? **a. Doctors in general**	Overall health	Bivariate analysis was not carried out
	IRSD quintile	
	Income	
	Age	
	Length of time with GP	
	Sex	
	Chronic health	
	Trusts police officers	
	Trusts their local politician	
	Trusts the national political leader	
	Trusts family	
	Trusts friends/people you know personally	
	Trusts neighbours	
	Trusts a doctor they are seeing for the first time	
	Trusts people of another religion	
	Trusts people of another nationality	
How much do you trust various groups of people? **a. A doctor you are seeing for the first time**	Overall health	Bivariate analysis was not carried out
	IRSD quintile	
	Income	
	Age	
	Length of time with GP	
	Sex	
	Chronic health	
	Trusts police officers	
	Trusts their local politician	
	Trusts the national political leader	
	Trusts family	

	Trusts friends/people you know personally	
	Trusts neighbours	
	Doctors in general	
	Trusts people of another religion	
	Trusts people of another nationality	
How much do you trust various groups of people? **a. Doctors in general**	Overall health	Bivariate analysis was not carried out
	IRSD quintile	
	Income	
	Age	
	Length of time with GP	
	Sex	
	Chronic health	
	Religious organisations	
	The press	
	The legal system	
	The media	
	The national government	
	The United Nations	
	The bank	
How much do you trust various groups of people? **a. A doctor you are seeing for the first time**	Overall health	Bivariate analysis was not carried out
	IRSD quintile	
	Income	
	Age	
	Length of time with GP	
	Sex	
	Chronic health	
	Religious organisations	
	The press	
	The legal system	
	The media	
	The national government	
	The United Nations	
	The bank	

APPENDIX 14: Data analyses not presented in the results section

The following data have not been included in the results section.

1. *Have you ever doubted information from the following individuals?*
    a. *Family*

Respondents were asked whether they have ever doubted information from a family member. Results for doubting information from family members were spread almost evenly between respondents, with 45.7% indicating they have doubted information from family members and 54.3% saying that they have not doubted information from family members. A statistically significant association was found between doubting information from a family member and the independent variables age (p = 0.000; Cramer's V = 0.287) and sex (p = 0.000; phi = –0.110).

An inverse association was found between age and reflexivity in that as age increased, respondents were less likely to doubt information from their family. In all, 72.7% of respondents aged 18–24 have doubted information from their family. The percentage of people saying they have doubted information from family decreases as age increases and only 17.6% of people aged 85+ have doubted information from their family.

Males appear to be less reflexive with regard to doubting information from their family with 39.3% indicating they have doubted information from their family compared with 50.4% of females.

The variables used in the multivariate analysis were sex, chronic health, age, and income. After controlling for these variables it was found that chronic health and age have statistically significant associations with doubting information from family (Table A14).

The older the respondent, the less likely they are to have doubted information from their family. Respondents aged 18–34 with a chronic health condition are the most likely to have doubted information from their family. Respondents without a chronic health condition are significantly less likely to doubt their family (OR 0.70; CI 0.52–0.95). Respondents aged 18–34 with a chronic health condition are the most likely to doubt their family.

Table A14: Multivariate odds ratios of factors associated with doubting information from family

		p	OR (CI)
Age	18–34		1.00
	35–54	**.05**	0.60 (0.37–0.99)
	55–74	**.00**	0.27 (0.17–0.45)
	74–85+	**.00**	0.10 (0.05–0.21)
Presence of a chronic health condition	Yes		1.00
	No	**.02**	0.70 (0.52–0.95)

Model stable (Hosmer and Lemeshow 2000). Chi square 0.10, p = 1.00

2. *Have you ever doubted information from the following individuals?*
    a. *Friends/people you know personally*

Respondents were asked whether they have ever doubted information from friends or people they know personally. Results for doubting information from friends/people known personally were spread almost evenly between respondents with 57.2% indicating yes they have doubted information from people they know personally and 42.8% saying that they have not doubted information from people they know personally.

A statistically significant association was found between doubting information from friends/people known personally and the independent variables age (p = 0.000; Cramer's V = 0.291), the presence of a chronic health condition (p = 0.016; phi = 0.076), and income (p = 0.001; Cramer's V = 0.126).

The percentage of people saying they have doubted information from friends/people they know personally is inversely proportional to age. As age increases, respondents are less likely to have doubted information from friends/people they know personally, with 81.8% of respondents aged 18–24 having doubted information from friends/people they know personally but only 29.4% of people aged 85+ having doubted information from friends/people they know personally.

People with a chronic health problem are more likely to doubt information from friends/people they know personally (62.2%) compared with those without a chronic health condition (54.3%).

Respondents in the income bracket $0–49,999 have the lowest level of doubt, with only 50.0% indicating they have doubted information from friends/people they know personally. The percentage of people doubting increases as income increases with 64.5% of those in the income bracket $105,000–150,000+ responding that they have doubted information from friends/people they know personally.

The variables used in the multivariate analysis were IRSD quintile, chronic health, sex, age, and income. After controlling for these variables it was found that chronic health, income and age have statistically significant associations with generalised trust (Table A15).

Respondents aged 55+ are less likely to doubt information from friends/people they know personally than 18–34 year olds. Respondents without a chronic health condition are less likely to doubt information from friends/people they know personally (OR 0.63; CI 0.46–0.86) than people with a chronic health condition. Respondents with an annual household income of $105,000–150,000+ are significantly more likely to doubt information from friends/people they know personally (OR 1.66; CI 1.11–2.47). Respondents aged 18–34 with an annual household income of $105,000–150,000+ with a chronic health condition are the most likely to doubt friends/people they know personally.

Table A15: Multivariate odds ratios of factors associated with doubting information from friends/people you know personally

		p	OR(CI)
Age	18–34		1.00
	35–54	.21	0.70 (0.41–1.22)
	55–74	**.00**	0.35 (0.20–0.59)
	75–85+	**.00**	0.17 (0.09–0.36)
Presence of a chronic health condition	Yes		1.00
	No	**.004**	0.63 (0.46–0.86)
Income	$0–49,999		1.00
	$50,000–104,999	.27	1.23 (0.86–1.76)
	$105,000–150,000+	**.01**	1.66 (1.11–2.47)

Model stable (Hosmer and Lemeshow 2000). Chi square 5.77, p = 0.67

3. *Have you ever doubted information from the following organisations?*
    a. *National government*

Respondents were asked whether they had ever doubted information from the national government. Results indicated high levels of reflexivity with 86.3% of respondents indicating that they have doubted information received from the national government. Only 133 respondents (13.7%) have not doubted information from the national government.

A statistically significant association was found between doubting information from the national government and the independent variables income (p = 0.001; Cramer's V = 0.128) and age (p = 0.007; Cramer's V = 0.140).

People in a high income bracket are more likely to doubt information from the national government than people in a lower income bracket. The income bracket of $105,000–150,000+ had the highest percentage of people doubting information from the national government (93.0%) and the lowest income bracket had the lowest number of respondents doubting information from the national government (82.1%).

As age increases, respondents are less likely to doubt information from the national government, with 89.2% of respondents aged 18–24 having doubted information from the national government while only 74.0% of people aged 75+ having done so. However, the cohorts 45–54 and 55–64 years are an exception to the pattern with

slightly higher percentages of those who doubt information from the national government (90.1% and 88.8% respectively) than those aged 35–44 (86.8%).

The variables used in the multivariate analysis were overall health, age, and income. After controlling for these variables it was found that income has a statistically significant association with doubt in the national government (Table A16).

Respondents with an annual household income of $105,000–150,000 are significantly more likely to doubt information from the national government (OR 2.90; CI 1.67–5.05) than respondents with an annual household income of $0–49,999.

Table A16: Multivariate odds ratios of factors associated with doubting information from the national government

		p	OR (CI)
Income	$0–49,999		1.00
	$50,000–104,999	.17	1.35 (0.88–2.06)
	$105,000–150,000+	**.00**	2.90 (1.67–5.05)

4. *Have you ever doubted information from the following organisations?*
    a. *Credit card companies*

Respondents were asked whether they had ever doubted information from credit card companies. Results indicated high levels of reflexivity with 80.0% of respondents indicated that they have doubted information from credit card companies. Only 193 respondents (20.0%) have not doubted information from credit card companies.

A statistically significant association was found between doubting information from credit card companies and the independent variables age (p = 0.000; Cramer's V = 0.177), the presence of a chronic health problem (p = 0.030; phi = 0.070), and income (p = 0.007; Cramer's V = 0.128).

As age increases, respondents are less likely to doubt information from credit card companies, with 81.9% of respondents aged 18–24 having doubted information from credit card companies while only 62.0% of people aged 75+ having doubted information from credit card companies. However, those aged 35–44 and 45–54 years are an exception to this pattern with slightly higher percentages of those who doubt information from credit card companies (84.4% and 85.4% respectively) than those aged 18–34 (81.9%) (Table A17).

Table A17: Association between doubting information from credit card companies and age

		Doubting information from credit card companies	
		Yes	**No**
Age	18–34	81.9%	18.1%
	35–44	84.4%	15.6%
	45–54	85.4%	14.6%
	55–64	81.7%	18.3%
	65–74	72.3%	27.7%
	75+	62.0%	38.0%

Respondents with a chronic health problem are more likely to doubt information from credit card companies (83.9%) than those without a chronic health problem (78.1%). The higher the income of the household, the more likely it is that respondents will doubt information from credit card companies. Respondents in the income bracket of $105,000–150,000+ have the highest percentage of people doubting information from credit card companies (85.4%) while the lowest income bracket had the lowest number of respondents indicating doubt in credit card companies (75.3%).

The variables used in the multivariate analysis were chronic health, age, and income. After controlling for these variables it was found that chronic health and age have statistically significant associations with generalised trust (Table A18).

Respondents without a chronic health condition are less likely to have doubted information from credit card companies (OR 0.62; CI 0.42–0.92). Respondents aged 75–85+ are less likely to have doubted information from credit card companies (OR 0.33; CI 0.16–0.70) than respondents aged 18–34. Respondents aged 75–85+ without a chronic health condition are the least likely to doubt information from credit card companies.

Table A18: Multivariate odds ratios of factors associated with doubting information from credit card companies

		p	OR (CI)
Presence of a chronic health condition	Yes		1.00
	No	**.02**	0.62 (0.42–0.92)
Age	18–34		1.00
	35–54	.56	1.21 (0.64–2.30)
	55–74	.28	0.71 (0.38–1.32)
	75–85+	**.004**	0.33 (0.16–0.70)

Model stable (Hosmer and Lemeshow 2000). Chi square 3.08, p = 0.54

5. *Have you ever doubted information from the following organisations?*
    a. *The media*

Respondents were asked whether they had ever doubted information from the media. Results indicated high levels of reflexivity with 92.3% of respondents indicated that they have doubted information they have received the media. Only 75 respondents (7.7%) have not doubted information from the media.

A statistically significant association was found between doubting information from the media and the independent variables income (p = 0.000; Cramer's V = 0.133), overall health (p = 0.006; Cramer's V = 0.103), and age (p = 0.008; Cramer's V = 0.130).

The higher the income, the more likely the respondent was to doubt information from the media. The highest percentage of people doubting information from the media was in the income bracket of $105,000–150,000+ (96.9%) and the lowest number of respondents indicating doubt in the media was in the lowest income bracket (88.5%).

People with 'very good' health are the most likely to doubt information from the media with 95.3% indicating they had doubted, while 93.1% with 'good health' and 88.2% with 'fair/bad/very' bad health indicated they had doubted information from the media.

There appears to be a bell shaped curve in responses regarding the relationship between age and doubt in the media. While 92.0% of respondents aged 18–34 had doubted information from the media, the percentage of respondents who answered yes to doubting information from the media gradually increases through cohorts 35–44 (96.7%) and 45–54 (96.6%) and then gradually decreases through cohorts 55–64 (93.8%) and 65+ (88.6%) (Table A19).

Table A19: Association between doubting information from the media and age

		Doubt in information from the media	
		Yes	**No**
Age	18–34	92.0%	8.0%
	35–44	96.7%	3.3%
	45–54	96.6%	3.4%
	55–64	93.8%	6.2%
	65+	88.6%	11.4%

The variables used in the multivariate analysis were overall health, chronic health, age, and income. After controlling for these variables it was found all four variables have statistically significant associations with doubting information from the media (Table A20).

Respondents without a chronic health condition were significantly less likely to doubt information from the media (OR 0.43; CI 0.21–0.88) than respondents with a chronic health condition. Respondents with good health (OR.42; CI 0.16–0.107), and fair/bad/very bad health (OR 0.24; CI 0.09–0.66) are less likely to doubt information from the media than people with very good health. Respondents with incomes $50,000+ were significantly more likely to doubt information from the media, as were respondents in the age brackets 35–54 (OR 2.85; CI 1.02–7.87). People aged 35–54 with an annual household income of $50,000+ with a chronic health condition but in very good health are the most likely to have doubted information from the media.

Table A20: Multivariate odds ratios of factors associated with doubting information from the media

		p	OR (CI)
Presence of a chronic health condition	Yes		1.00
	No	**.02**	0.43 (0.21–0.88)
Age	18–34		
	35–54	**.05**	2.85 (1.02–7.87)
	55–74	.75	1.16 (0.46–2.89)
	75–85+	.12	2.91 (0.75–11.27)
Income	$0–49,999		1.00
	$50,000–104,999	**.03**	2.21 (1.10–4.43)
	$105,000–150,000+	**.01**	3.41 (1.33–8.76)
Overall health	Very good		1.00
	Good	**.07**	0.42 (0.16–1.07)
	Very bad/bad/fair	**.01**	0.24 (0.09–0.66)

Model stable (Hosmer and Lemeshow 2000). Chi square 4.83, p = 0.11

6. *How much do you trust various groups of people?*
    a. *Family*

Respondents were asked to indicate their level of trust in their family on a scale of 1–4, where 1 = trust them completely, 2 = trust them somewhat, 3 = do not trust them very much, 4 = do not trust them at all. Results indicate high levels of trust in family with 81.2% indicating their trust their family completely, 16.0 indicating they trust them somewhat and only 2.7% indicating they trust them not very much/not at all (Table A21).

Table A21: Level of trust in family

	N	Valid %
Trust them completely	830	81.2
Trust them somewhat	164	16.0
To not trust them very much/do not trust them at all	28	2.7
Total	1022	100.0

Bivariate analysis showed a statistically significant association between trust in family and the independent variables overall health (p = 0.000; Cramer's V = 0.114) and the presence of a chronic health condition (p = 0.012; phi = 0.094).

Respondents with very good health were more likely to trust their family completely, with 85.6% responding they trust them completely compared with 83.8% of people with good health and 73.8% of people with fair/bad/very bad health.

Respondents with a chronic health problem were less likely to trust their family with only 76.6% indicating they trust their family completely, compared with 83.7% of people without a chronic health problem.

The variables used in the multivariate analysis were overall health and chronic health. After controlling for these variables overall health was found to have a statistically significant association with trust in family (Table A22).

Respondents with good health are significantly more likely (OR 5.82; 1.59–21.36) to trust their family than people with very good health.

Table A22: Multivariate odds ratios of factors associated with trust in family

		p	OR (CI)
Overall health	Very good		1.00
	Good	**.01**	5.82 (1.59–21.36)
	Very bad/bad/fair	.50	0.76 (0.33–1.71)

7. *How much do you trust various groups of people?*
    a. *Neighbours*

Respondents were asked to indicate their level of trust in their neighbours on a scale of 1–4, where 1 = trust them completely, 2 = trust them somewhat, 3 = do not trust

them very much, 4 = do not trust them at all. The findings indicate that most respondents (56.5%) trust their neighbours somewhat with 34.3% trusting them completely and 9.2% having little to no trust.

A statistically significant association was found between trust in neighbours and the independent variables sex (p = 0.005; Cramer's V = 0.108), presence of a chronic health problem (p = 0.043; phi = 0.095), age (p = 0.000; Cramer's V = 0.227), and income (p = 0.002; Cramer's V = 0.110).

Females have higher trust in their neighbours than males, with 35.1% of females indicating they trust their neighbours completely, 53.3% indicating they trust them somewhat, and 11.6% indicating they trust them not very much/ not at all. The findings for males were lower than females, with 32.7% of males indicating they trust neighbours completely, 61.4% indicating them trust them somewhat and 5.9% indicating they trust them not very much/ not at all.

People with a chronic health problem were slightly less likely to trust their neighbours with 31.2% responding they trust them completely compared with 36.1% of people without a chronic health problem.

As age increase, so does the level of trust in neighbours. While 13.9% of those aged 18–34 trust their neighbours completely, 54.8% of individuals aged 75+ trust their neighbours completely.
The higher the income bracket, the less likely respondents are to trust their neighbours completely. While 40.0% of people in the income bracket $0–49,999 indicated complete trust only 27.0% of those in the income bracket $105,000–150,000+ indicated complete trust.

The variables used in the multivariate analysis were overall health, chronic health, age, sex, and income. After controlling for these variables it was found that income and age have statistically significant associations with trust in neighbours (Table A23).

Respondents older than 34 are significantly more likely to trust their neighbours (OR ≥ 2.26) than respondents aged 18–34. Respondents with an income of $50,000+ are significantly more likely to trust their neighbours. Respondents aged 75–85+ in the income bracket $50,000–104,999 are the most likely to trust their neighbours.

Table A23: Multivariate odds ratios of factors associated with trust in neighbours

		p	OR (CI)
Age	18–34		1.00
	35–54	**.02**	2.26 (1.16–4.39)
	55–74	**.00**	8.71 (3.83–19.79)
	75–85+	**.00**	16.01 (3.40–75.29)
Income	$0–49,999		1.00
	$50,000–104,999	**.003**	2.72 (1.41–5.28)
	$105,000–150,000+	**.02**	2.21 (1.14–4.27)

Model stable (Hosmer and Lemeshow 2000). Chi square 4.41, p = 0.62

8. *How much do you trust various groups of people?*
    a. *People you meet for the first time*

Respondents were asked to indicate their level of trust in people they meet for the first time on a scale of 1–4, where 1 = trust them completely, 2 = trust them somewhat, 3 = do not trust them very much, 4 = do not trust them at all. Results indicate that 65.9% of respondents have high levels of trust in people they meet for the first time with only 26.6% (221) indicating they would not trust them very much and 7.5% (62) responding that they would not trust them at all.

A statistically significant association was found between trust in people met for the first time and age (p = 0.000; Cramer's V = 0.212). As age increases, trust in people met for the first time increases, with 17.3% of those aged 18–34 not trusting people they meet for the first time while only 2.3% of individuals aged 65+ indicating they do not trust people they meet for the first time.

The variables used in the multivariate analysis were overall health, length of time seeing GP, age, and income. After controlling for these variables it was found that age has a statistically significant association with trust in people respondents meet for the first time (Table A24).

As age increases, so does the likelihood that respondents trust people they meet for the first time. Respondents aged 75–85+ are the most likely to trust people they meet for the first time (OR 7.57; CI 3.24–17.67).

Table A24: Multivariate odds ratios of factors associated with trust in people you meet for the first time

		p	OR (CI)
Age	18–34		1.00
	35–54	**.02**	1.85 (1.11–3.10)
	55–74	**.00**	4.93 (2.87–8.47)
	75–85+	**.00**	7.57 (3.24–17.67)

9. How much do you trust various groups of people?

a. People of another religion

Respondents were asked to indicate their level of trust in people of another religion on a scale of 1–4, where 1 = trust them completely, 2 = trust them somewhat, 3 = do not trust them very much, 4 = do not trust them at all. Results suggest that the majority of respondents (70.8%) trust someone of another religion somewhat but not completely. A total of 17.7% of respondents said they trust people of another religion completely while 11.5% indicated they had little or no trust in people of another religion.

A statistically significant association was found between trust in people of another religion and the independent variables presence of a chronic health condition (p = 0.033; phi = 0.108) and age (p = 0.000; Cramer's V = 0.157).

People with a chronic health condition are slightly less likely to trust people of another religion with 16.7% indicating they trust them completely compared with 18.4% of people without a chronic condition indicating they trust them completely.

Older respondents were more likely to trust people of another religion, with 7.9% of those aged 18–34 trusting people of another religion completely while 22.5% of individuals aged 65+ trusted people of another religion completely.

The variables used in the multivariate analysis were chronic health, sex, age, and income. After controlling for these variables it was found that sex and age have a statistically significant association with trust in people of another religion (Table A25).

As age increases, so does the likelihood that respondents trust people of another religion. Respondents aged over 75 are significantly more likely to trust people of

another religion (OR 7.33; CI 1.94–27.65) than respondents aged 18–34. Females are more likely than males to trust people of another religion (OR 1.89; CI 1.12–3.21). Females aged 75–85+ are the most likely respondents to trust people of another religion.

Table A25: Multivariate odds ratios of factors associated with trust in people of another religion

		p	OR (CI)
Sex	Male		1.00
	Female	**.02**	1.89 (1.12–3.21)
Age	18–34		1.00
	35–54	.24	1.54 (0.75–3.14)
	55–74	**.00**	4.14 (1.87–9.17)
	75–85+	**.00**	7.33 (1.94–27.65)

Model stable (Hosmer and Lemeshow 2000). Chi square 0.53, p = 0.97

10. How much do you trust various groups of people?

a. People of another nationality

Respondents were asked to indicate their level of trust in people of another nationality on a scale of 1–4, where 1 = trust them completely, 2 = trust them somewhat, 3 = do not trust them very much, 4 = do not trust them at all. Results suggest that the majority of respondents (73.4%) trust someone of another nationality somewhat, with 15.4% of respondents saying they trust people of another nationality completely while 11.2% indicated they have little or no trust in people of another nationality.

A statistically significant association was found between trusting people of another nationality and overall health (p = 0.029; Cramer's V = 0.083). Respondents with very good health were more likely to trust people of another nationality completely with 21.2% responding they trust them completely compared with 13.4% of people with good health and 13.3% of people with fair/bad/very bad health.

The variables used in the multivariate analysis were overall health, age, and sex. After controlling for these variables, no statistically significant associations were found between the variables and trusting people of another nationality.

11. How much do you trust various groups of people?

a. National political leader

Respondents were asked to indicate their level of trust in the national political leader on a scale of 1–4, where 1 = trust them completely, 2 = trust them somewhat, 3 = do not trust them very much, 4 = do not trust them at all. Results indicate that 41.2% of respondents trust their national political leader completely or somewhat, 39.9% trust them not very much and 18.9% responded that they trust them not at all.

The variables used in the multivariate analysis were overall health, sex, age, and income. After controlling for these variables it was found that overall health and age have statistically significant associations with trusting the national political leader (Table A26).

Poorer health is associated with distrusting the national political leader. Respondents aged 75–85+ are significantly more likely than those 18–34 to trust the national political leader (OR 1.88; CI 1.00–3.56). Older respondents in very good health are the most likely to trust the national political leader.

Table A 26: Multivariate odds ratios of factors associated with trust in the national political leader

		p	OR (CI)
Overall health	Very good		1.00
	Good	**.04**	0.70 (0.49–0.99)
	Very bad/bad/fair	**.02**	0.64 (0.43–0.93)
Age	18–34		1.00
	35–54	.93	1.02 (0.62–1.70)
	55–74	.65	1.13 (0.68–1.87)
	75–85+	**.05**	1.88 (1.00–3.56)

Model stable (Hosmer and Lemeshow 2000). Chi square 1.64, p = 0.95

12. How much do you trust various groups of people?

a. Local politician

Respondents were asked to indicate their level of trust in their local politician on a scale of 1–4, where 1 = trust them completely, 2 = trust them somewhat, 3 = do not trust them very much, 4 = do not trust them at all. Results indicate that 5.3% of respondents trust their local politician completely, 42.0% trust them somewhat, 36.1% trust them not very much and 16.6% responded that they trust them not at all.

A statistically significant association was found between trusting the local politician and the independent variables IRSD quintile (p = 0.009), income (p = 0.015;

Cramer's *V* = 0.093), and the presence of a chronic health problem (*p* = 0.047; phi = 0.092).

Only ≤ 4.8% of respondents living in areas identified as IRSD quintiles 1, 2, 4, and 5 trust their local politician completely while 11.8% of people living in an area identified as IRSD quintile 3 trust their local politician completely.

Respondents in the income bracket $0–49,999 are more likely to trust local politicians than respondents with an income above $50,000 (Table A27).

Table A27: Association between trust in the respondent's local politician and income

		Trust in local politician			
		Trust them completely	**Trust them somewhat**	**Do not trust them very much**	**Do not trust them at all**
Income	$0–49,999	7.0%	48.4%	30.2%	14.4%
	$50,000–104,999	3.2%	41.4%	37.9%	17.5%
	$105,000–150,000+	4.9%	36.8%	40.5%	17.8%

People with a chronic health problem were found to be less likely to trust local politicians than those without a choric health problem, with 3.5% with a chronic health problem indicating they trust politicians completely and 38.1% trusting them somewhat. These percentages are lower than those for respondents without a chronic condition (6.1% trusting completely and 43.9% trusting somewhat).

The variables used in the multivariate analysis were overall health, chronic health, IRSD quintile, and income. Respondents who do not have very good health are less likely to trust their local politician than respondents with very good health. Respondents with an annual household income of greater than $49,999 are less likely to trust their local politician than respondents with an income of less than $49,999. Respondents with very good health and an annual household income of $0–49,999 are the most likely to trust their local politician (Table A28).

Table A28: Multivariate odds ratios of factors associated with trust in the respondent's local politician

		p	OR (CI)
Overall health	Very good		1.00
	Good	**.02**	0.68 (0.49–0.94)
	Very bad/bad/fair	**.00**	0.51 (0.36–0.74)
Income	$0–49,999		1.00
	$50,000–104,999	**.01**	0.64 (0.47–0.88)
	$105,000–150,000+	**.00**	0.51 (0.36–0.73)

Model stable (Hosmer and Lemeshow 2000). Chi square 4.73, p = 0.58

13. How much do you trust various groups of people?

a. Police officers

Respondents were asked to indicate their level of trust in police officers on a scale of 1–4, where 1 = trust them completely, 2 = trust them somewhat, 3 = do not trust them very much, 4 = do not trust them at all. Results suggest that the majority of respondents (60.8%) trust police officers somewhat while 24.4% of respondents said they trust police officers completely and 14.4% indicated they had little or no trust in police officers.

A statistically significant association was found between trust in police officers and the independent variables income (*p* =027; Cramer's *V* = 0.087), sex (*p* = 0.002; phi = 0.111) and age (*p* = 0.005; Cramer's *V* = 0.123).

As income increases, the percentage of people who have complete trust in police officers decreases, with 29.5% of people in the income bracket $0–49,999 indicating they have complete trust in police officers while 18.7% of people in the income bracket $105,000–150,000+ indicated complete trust.

Females were found to have higher levels of trust in police officers with 26.2 % indicating they trust police officers completely, 62.6% indicating they trust them somewhat, and 11.1% indicating they trust them not very much/not at all. The findings indicate lower levels of trust in police officers among males with 22.3%

indicating they trust them completely, 58.8% indicating them trust them somewhat and 18.9% indicating they trust them not very much/ not them at all.

As age increases, so does the level of trust people have in police officers, with 18.6% of those aged 18–34 trusting police officers completely and 39.0% of individuals aged 75+ trusting police officers completely. The exception to this pattern is the slight decrease in the percentage of people aged 45–54 (18.6%) having complete trust in police officers compared with the younger cohort of 35–44 (20.0%) (Table A29).

Table A29: Association between trust in police officers and age

		Trust in police officers		
		Trust them completely	**Trust them somewhat**	**Do not trust them very much/do not trust them at all**
Age	18–34	18.6%	58.1%	23.3%
	35–44	20.0%	68.3%	11.7%
	45–54	18.6%	64.7%	16.7%
	55–64	25.0%	62.0%	13.0%
	65–74	29.6%	58.5%	11.9%
	75+	39.0%	51.2%	9.8%

The variables used in the multivariate analysis were length of time with GP, chronic health, sex, age, and income. After controlling for these variables it was found that sex and age have statistically significant associations with trust in police officers (Table A30).

As age increases, so does trust in police officers. Females are more likely to trust police officers (OR 2.19; CI 1.45–3.31) than males. Females aged 75–85+ are the most likely to trust police officers.

Table A30: Multivariate odds ratios of factors associated with trust in police officers

		p	OR (CI)
Age	18–34		1.00
	35–54	**.04**	1.88 (1.04–3.41)
	55–74	**.00**	2.73 (1.47–5.06)
	75–85+	**.00**	3.82 (1.54–9.48)
Female	Male		1.00
	Female	**.00**	2.19 (1.45–3.31)

Model stable (Hosmer and Lemeshow 2000). Chi square 0.15, p = 1.00

14. How much do you trust the following organisations?

a. Religious organisations

Respondents were asked to indicate their level of trust in religious organisations on a scale of 1–4, where 1 = trust them completely, 2 = trust them somewhat, 3 = do not trust them very much, 4 = do not trust them at all. A total of 54.2% of respondents trust religious organisations somewhat while 27.5% trust them not very much, 10.7% trust them not at all and only 7.6% trust them completely.

A statistically significant association was found between trust in religious organisations and the independent variables income (p = 0.001; Cramer's V = 0.115), age (p = 0.000; Cramer's V = 0.116), IRSD quintile (p = 0.015; Cramer's V = 0.096), and sex (p = 0.000; Cramer's V = 0.157).

As income increases, the percentage of people who have complete trust in religious organisations decreases, with 10.8% of people in the income bracket $0–49,999 indicating they have complete trust in religious organisations while only 3.3% of people within the income bracket $105,000–150,000+ indicated complete trust in religious organisations.

Findings suggest that respondents younger than aged 65 have lower levels of trust in religious organisations. Less than 7% in each cohort younger than 65 indicated they trust religious organisations completely and less than 54% indicated they trust them somewhat. Comparatively, 12.6% of respondents ages 65+ indicated they trust religious organisations completely and 61.1% indicated they trust them somewhat.

As IRSD quintile increases from 1 to 5, the level of trust in religious organisations decreases, with 10.1% of people living in an area with IRSD quintile of 1 (most disadvantaged) indicating that they trust religious organisations completely while only 6.5% of people living in an area identified as IRSD quintile 5 (most advantaged) saying they trust religious organisations completely.

Females have higher trust in religious organisations, with 9.4 % indicating they trust religious organisations completely and 6.9% indicating they trust them not at all while 5.0% of males trust them completely and 15.5% trust them not at all.

The variables used in the multivariate analysis were IRSD quintile, sex, age, and income. After controlling for these variables it was found that IRSD quintile, sex, and

age have statistically significant associations with trust in religious organisations (Table A31).

Respondents living in areas identified as IRSD quintile 2 and 3 are significantly less likely to trust religious organisations (OR 0.60; OR 0.56). The older the respondents, the more likely they are to trust religious organisations. Females are more likely than males to trust religious organisations (OR 1.95). Females aged 75–85+ who living in areas identified as IRSD 1 are the most likely to trust religious organisations.

Table A31: Multivariate odds ratios of factors associated with trust in religious organisations

		p	OR (CI)
IRSD quintile	Low		1.00
	2	**.05**	0.60 (0.36–1.00)
	3	**.03**	0.56 (0.34–0.94)
	4	.74	1.09 (0.65–1.82)
	High	.18	0.71 (0.43–1.17)
Age	18–34		1.00
	35–54	.47	1.20 (0.73–2.00)
	55–74	**.00**	2.23 (1.32–3.76)
	75–85+	**.00**	4.95 (2.34–10.50)
Sex	Male		1.00
	Female	**.00**	1.95 (1.42–2.69)

Model stable (Hosmer and Lemeshow 2000). Chi square 8.74, p = 0.37

15. How much do you trust the following organisations?

a. The press

Respondents were asked to indicate their level of trust in the press on a scale of 1–4, where 1 = trust them completely, 2 = trust them somewhat, 3 = do not trust them very much, 4 = do not trust them at all. A total of 51.3% of respondents trusted the press not very much and 20.6% trusted them not at all, indicating a low level of trust in the press. Only 28.1% trust the press completely or somewhat.

A statistically significant association was found between trust in the press and the independent variables age (p = 0.004; Cramer's V = 0.125), income (p = 0.008 Cramer's V = 0.086) and sex (p = 0.039; phi = 0.081).

The majority of respondents (51.4%) across all age cohorts indicated that they do not trust the press very much. The least trusting cohorts are those aged 18–34 and 55–64 with 31.0% and 28.1% respectively responding that they trust the press not at

all. Respondents aged 75+ were found to be the least likely to trust the press not at all (8.6%).

Respondents in the middle income brackets $50,000–104,999 have the lowest level of trust with 23.0% indicating complete trust in the press while the lowest and highest income brackets indicated higher levels of trust (33.8% and 28.6% complete trust).

Females are more likely to trust the press, with 28.5% saying they trust them completely/somewhat and 53.6% saying they trust them not very much compared with males (27.3% and 48.3%).

The variables used in the multivariate analysis were overall health, chronic health, sex, age, and income. After controlling for these variables it was found that overall health and income have statistically significant associations with trusting the press (Table A32).

As health declines, trust in the press decreases. People who earn ≥ $50,000 are less likely to trust the press. Respondents with very good health with an annual household income of $0–49,999 are the most likely to trust the press.

Table A32: Multivariate odds ratios of factors associated with trust in the press

		p	OR (CI)
Overall health	Very good		1.00
	Good	**.08**	0.74 (0.52–1.04)
	Very bad/bad/fair	**.02**	0.62 (0.42–0.92)
Income	$0–49,999		1.00
	$50,000–104,999	**.00**	0.58 (0.41–0.81)
	$105,000–150,000+	**.07**	0.72 (0.50–1.03)

Model stable (Hosmer and Lemeshow 2000). Chi square 1.72, p = 0.97

16. How much do you trust the following organisations?

a. The legal system

Respondents were asked to indicate their level of trust in the legal system on a scale of 1–4, where 1 = trust them completely, 2 = trust them somewhat, 3 = do not trust them very much, 4 = do not trust them at all. Overall 55.7% of respondents

trusted the legal system somewhat or completely while roughly half the respondents did not trust the legal system (32.8% trust them not very much and 11.5% trust them not at all).

A statistically significant association was found (p = 0.038; Cramer's V = 0.092) between sex and respondents' trust in the legal system. Females have slightly higher trust in the legal system, with 9.0% indicating they trust the legal system not at all while 14.8% of males trust it not at all.

The variables used in the multivariate analysis were sex and income. After controlling for these variables, no statistically significant associations were found between trust in the legal system and sex or income.

17. How much do you trust the following organisations?

a. The media

Respondents were asked to indicate their level of trust in the media on a scale of 1–4, where 1 = trust them completely, 2 = trust them somewhat, 3 = do not trust them very much, 4 = do not trust them at all. A total of 24.4% of respondents trusted the media somewhat or completely while the majority of the respondents did not trust the media (50.7% trust them not very much and 24.8% trust them not at all).

A statistically significant association was found between trust in the media and the independent variables age (p = 0.016; Cramer's V = 0.115), and income (p = 0.008; Cramer's V = 0.086).

The majority of respondents (50.6%) across all cohorts indicated that they trust the media not very much. There does not appear to be a consistent pattern with regard to age and level of trust in the media although it does appear that respondents aged 65+ are more likely to trust the media than those aged 18–64 (Table A33).

Table A33: Association between trust in the media and age

		Trust in the media		
		Trust them somewhat/trust them completely	**Do not trust them very much**	**Do not trust them at all**
Age	18–34	23.8%	42.9%	33.3%
	35–44	24.2%	54.8%	21.0%
	45–54	22.0%	54.1%	23.9%
	55–64	17.3%	50.3%	32.4%
	64–75	31.0%	43.9%	25.2%

	75+	28.4%	56.8%	14.8%

Respondents in the middle income brackets $50,000–104,999 have the lowest level of trust in the media with 19.3% indicating complete trust in the media while the lowest and highest income brackets indicated higher levels of trust (29.5% and 25.3% complete trust).

The variables used in the multivariate analysis were length of time with current GP, chronic health, age, sex, and income. After controlling for these variables it was found that income, presence of a chronic health condition, and length of time with current GP had statistically significant associations with generalised trust (Table A34).

People who earn an annual household income of $50,000–104,999 are significantly less likely to trust the media (OR 0.58; CI 0.40–0.84) than respondents who earn less than $50,000. Respondents without a chronic health condition are significantly more likely to trust the media (OR 1.47; CI 1.05–2.04). Respondents who have been seeing their GP for 1–5 years or longer than ten years are significantly more likely to trust the media than respondents who have been seeing their current GP for less than one year. Respondents with an income of $0–49,999 who do not have a chronic health condition and who have been seeing their current GP for longer than one year are most likely to trust the media.

Table A34: Multivariate odds ratios of factors associated with trust in the media

		p	OR (CI)
Income	$0–49,999		1.00
	$50,000–104,999	**.00**	0.58 (0.40–0.84)
	$105,000–150,000+	.37	0.84 (0.58–1.23)
Presence of a chronic health condition	Yes		1.00
	No	**.02**	1.47 (1.05–2.04)
Length of time with current GP	< 1 year		1.00
	1–5 years	**.00**	2.36 (1.36–4.10)
	6–10 years	.11	1.67 (0.90–3.11)
	> 10 years	**.05**	1.73 (0.99–3.01)

Model stable (Hosmer and Lemeshow 2000). Chi square 12.41, p = 0.13

18. How much do you trust the following organisations?

a. Your government

Respondents were asked to indicate their level of trust in the government on a scale of 1–4, where 1 = trust them completely, 2 = trust them somewhat, 3 = do not trust them very much, 4 = do not trust them at all. Overall, 45.5% of respondents trusted the government somewhat or completely while roughly half the respondents did not trust the government (38.0% trust them not very much and 16.6% trust them not at all).

The variables used in the multivariate analysis were IRSD quintile, length of time with GP, and sex. After controlling for these variables no statistically significant associations were found with trust in the national government.

19. How much do you trust the following organisations?

a. United Nations

Respondents were asked to indicate their level of trust in the United Nations family on a scale of 1–4, where 1 = trust them completely, 2 = trust them somewhat, 3 = do not trust them very much, 4 = do not trust them at all. A total of 56.4% of respondents trusted the United Nations somewhat or completely while roughly half the respondents did not trust the United Nations (29.9% trust them not very much and 13.6% trust them not at all).

A statistically significant association was found (p = 0.000; phi = 0.183) between sex and trust in the United Nations. Females have slightly higher trust in the United Nations with 5.0% indicating they trust United Nations completely, 58.0% indicating they trust them somewhat, 27.9% indicating they trust them not very much, and 9.2% trust them not at all. The findings for males were lower, with 2.9% indicating they trust the United Nations completely, 44.6% indicating they trust them somewhat 32.5% indicating they trust them not very much, and 19.9% indicating they trust them not at all.

The variables used in the multivariate analysis were age and sex. After controlling for these variables it was found that sex had a statistically significant association with trust in the United Nations (Table A35). Females are significantly more likely than men to trust the United Nations (OR 1.88; CI 1.44–2.56)

Table A35: Multivariate odds ratios of factors associated with trust in the United Nations

		p	OR (CI)
Sex	Male		1.00
	Female	**.000**	1.88 (1.44–2.56)

20. How much do you trust the following organisations?

a. Banks

Respondents were asked to indicate their level of trust in banks on a scale of 1–4, where 1 = trust them completely, 2 = trust them somewhat, 3 = do not trust them very much, 4 = do not trust them at all. The results were spread between trusting somewhat (42.3%) and not very much (32.8%) with only 6.3% indicating complete trust and 18.5% indicating that they trust banks not at all.

Statistically significant associations were found between trusting banks and the independent variables age (p = 0.001; Cramer's V = 0.122) and income (p = 0.026; Cramer's V = 0.087).

The majority of respondents (50.6%) across all cohorts indicated that they do not trust banks very much. There appears to be a bell shaped pattern with regard to trusting banks with 7.2% of 18–34 years olds indicating they had complete trust while less than 3.5% of those 35–54 indicated complete trust in banks. Levels of complete trust increased for respondents aged 55+ although responses still indicate low levels of trust with less than 11.6% indicating complete trust in banks (Table A36).

Table A36: Association between trust in banks and age

		Trust in banks			
		Trust them completely	**Trust them somewhat**	**Do not trust them very much**	**Do not trust them at all**
Age	18–34	7.2%	30.1%	36.1%	26.5%
	35–44	2.4%	42.3%	38.2%	17.1%
	45–54	3.4%	40.1%	34.8%	21.7%

	55–64	7.1%	41.8%	33.7%	17.4%
	65–74	11.5%	43.9%	26.1%	18.5%
	75+	11.0%	56.1%	26.8%	6.1%

Respondents in the lowest income bracket $0–49,999 had the highest level of trust with 7.5% indicating they trust banks completely. As income increased, trust in banks decreases with 6.1% of those in the bracket $50,000–104,999 and 3.1% of those in the bracket $105,000–150,000+ indicating complete trust in banks.

The variables used in the multivariate analysis were overall health, chronic health, sex, age, and income. After controlling for these variables it was found that overall health, sex, and age have statistically significant associations with trust in banks (Table A37).

Females are more likely than males to trust banks (OR 1.44; CI 1.07–1.93). Respondents with very bad/bad or fair health are significantly less likely to trust banks (OR 0.52; CI 0.35–0.76) while older respondents are more likely to trust banks. Females aged 75–85+ with very good health are the most likely to trust banks.

Table A37: Multivariate odds ratios of factors associated with trust in banks

		p	OR (CI)
Sex	Male		1.00
	Female	**.02**	1.44 (1.07–1.93)
Overall health	Very good		1.00
	Good	.11	0.76 (0.53–1.06)
	Very bad/bad/fair	**.00**	0.52 (0.35–0.76)
Age	18–34		1.00
	35–54	.14	1.47 (0.89–2.44)
	55–74	**.00**	2.35 (1.41–3.92)
	75–85+	**.00**	4.70 (2.41–9.17)

Model stable (Hosmer and Lemeshow 2000). Chi square 4.04, p = 0.78

APPENDIX 15 – Quantitative questionnaire

Trust in Australia Survey

- YOUR ANSWERS WILL BE STRICTLY CONFIDENTIAL. You will not be able to be identified in any report from this study.

- Please answer each question according to the directions outlined by the question

- Once completed, please return to Flinders University in the prepaid envelope provided.

In the following questions please tick one box unless otherwise specified. In this case, you'll be provided with directions.

Please indicate your **gender**.

□ Male □ Female

In what year were you born? _____

What was the **total annual income** received by everyone in your household BEFORE TAX in the last financial year?

Per year	
0 - $14,999	□
$15,000 - $29,999	□
$30,000 - $44,999	□
$45,000 - $59,999	□
$60,000 - $74,999	□
$75,000 - $89,999	□
$90,000 - $104,999	□
$105,000 - $119,999	□
$120,000 - $134,999	□
$135,000 - $149,999	□
$150,000 or more	□
Don't know	□

In general, would you say your **health** is...

□ Very good

□ Good

□ Fair

□ Bad

□ Very bad

Do you have any **chronic (long-standing)** physical or mental health problem, illness or disability?

□ Yes

□ No

How long have you been seeing your current general practitioner or family physician?

□ Less than one year

□ 1 to 5 years

□ 6-10 years

□ Over 10 years

□ I do not see a general practitioner (GP)

If you had a **health problem** that needed **immediate** attention and your usual doctor was not available, how much would the following factors influence your decision to **trust a doctor** you have never seen before? Please circle a number from 1 to 3 or tick the box on the far right.

	A lot	**Somewhat**	**Not at all**	**Do not know**
The way they are dressed	□	□	□	□
They are wearing a white coat	□	□	□	□
They seem to be caring	□	□	□	□
They appear to be competent in their ability as a doctor	□	□	□	□
They appear to be older than 40	□	□	□	□
They appear to be younger than 40	□	□	□	□
They are female	□	□	□	□
They are male	□	□	□	□

Generally speaking, would you say that **most people** can be **trusted**?

□ Yes

□ No

□ Don’t know

Do you think that **most people** would **take advantage** of you if they had the chance?

□ Yes

□ No

□ Have not thought about it

How much do you **trust** various **groups of people**?

	Trust them completely	**Trust them somewhat**	**Do not trust them very much**	**Do not trust them at all**	**Have not thought about it**	**Not relevant**
Your family	□	□	□	□	□	□
Your neighbours	□	□	□	□	□	□
People you meet for the first time	□	□	□	□	□	□
Your regular doctor	□	□	□	□	□	□
Doctors in general	□	□	□	□	□	□
A doctor you are seeing for the first time	□	□	□	□	□	□
People of another religion	□	□	□	□	□	□
People of another nationality	□	□	□	□	□	□
National political leader	□	□	□	□	□	□
Your local politician	□	□	□	□	□	□
Police officers	□	□	□	□	□	□

How much do you **trust** the following **organisations** or **institutions**?

	Trust them completely	**Trust them somewhat**	**Do not trust them very much**	**Do not trust them at all**	**Have not thought about it**	**Not relevant**
Religious organisations	□	□	□	□	□	□
The press	□	□	□	□	□	□
The legal system	□	□	□	□	□	□
The media	□	□	□	□	□	□
Your government	□	□	□	□	□	□
United Nations	□	□	□	□	□	□
Banks	□	□	□	□	□	□

Have you ever **doubted** information from the following **organisations/institutions**?

	Yes	**No**	**Have not received information from this organisation/institution**
Your national government	□	□	□
Credit card companies	□	□	□
The media	□	□	□

Have you ever **doubted** information from the following individual(s)?

	Yes	**No**	**Have not received information from this individual**
Your family doctor	□	□	□
Doctors in general	□	□	□
Family member	□	□	□
Friends/people you	□	□	□

know personally			

Have you ever requested a **second opinion** after receiving medical advice from a **doctor**?

□ Yes

□No

Thank you very much for completing this questionnaire.

Please return the questionnaire in the envelope provided

(*no postage stamp required*)

APPENDIX 16: Letter of introduction for survey participants

Dear Sir/Madam

I hold the position of Associate Professor at Flinders University, Department of Public Health.

I, along with 4 other researchers, a PhD student and an Honours student, are undertaking research leading to the production of a thesis or other publications on the subject of social quality in Australia.

I would be grateful if you would volunteer your time to assist in this project by completing the attached questionnaire and returning it in the addressed, pre-paid envelope provided. No more than 30 minutes on one occasion will be required.

Be assured that any information provided will be treated in the strictest confidence and none of the participants will be individually identifiable in the resulting thesis, report or other publications. You are of course, entirely free not to participate in this study.

Any enquiries you may have concerning this project should be directed to me at the address given above or by telephone on 08 7221 8415, by fax on 08 7221 8424 or by email paul.ward@flinders.edu.au.

Thank you for your attention and assistance.

Yours sincerely

Associate Professor Paul Ward

APPENDIX 17: Letter of information for survey participants

The Department of Public Health at Flinders University is undertaking research regarding social quality in Australia.

Purpose of the research

The purpose of this research project is to measure social quality in Australia. We are surveying Australians regarding topics such as life changes, satisfaction levels including poverty, disability and pollution, and other questions that will allow us to determine Australian's perceptions of their own quality of life. In addition, we will be requesting information regarding sex, age, postcode, education level, occupation and annual income. We have mailed this questionnaire to 5000 households throughout Australia. These household addresses have been randomly chosen from the electronic white pages.

What will you be asked to do?

We ask that you complete the attached questionnaire which will take no longer than thirty minutes to complete. Once you have completed this questionnaire, we ask that you return it to us in the pre-paid, addressed envelope we have provided.

What types of questions will you be asked?

Some of the topics included in the questionnaire are:

- How you feel about your current level of financial security
- Your level of trust in certain individuals (family, friends, political leaders etcetera) and institutions (the government etcetera)
- How safe you feel in your community/area of residence
- Your level of satisfaction at work

Benefits of the research

This research may provide information regarding social quality in Australia. The benefit to you is that the outcomes of this research will encourage future research on how to improve social quality in Australia. Also, this research may lead to the reform of current government policies as a way of improving social quality.

Risks

This research will require a maximum of thirty minutes of your time. The questionnaire addresses issues including financial security, disability, pollution and other topics that may cause you anxiety or distress. If you find that this is becoming an issue during your participation, you are free to withdraw from the project at any time by not completing or

returning the questionnaire. You are also free to decline to answer particular questions in the questionnaire.

How will confidentiality be maintained?

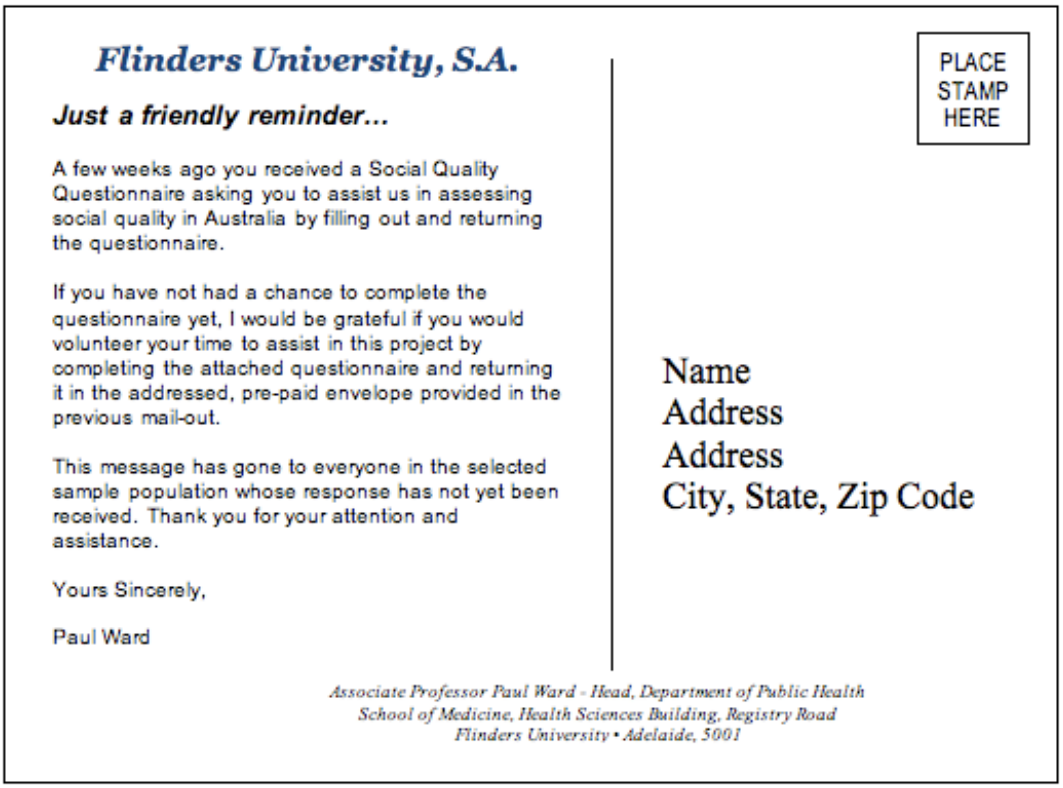
The questionnaires have been posted to "The Householder" since we have collected addresses from the electronic white pages which do not provide the name(s) of the residents. The information provided on the questionnaires will remain confidential and no one will know the names or information of any of the individuals who completed and returned the questionnaire.

How can I find out more information?

If you would like more information regarding this research project, please contact Paul Ward by telephone 7221 8415 (office), by fax 7221 8424, or by email paul.ward@flinders.edu.au

This research has been approved by the Social and Behavioural Ethics Committee at Flinders University. If you have any concerns about the manner in which the questionnaire has been conducted you are advised to contact the Secretary of the Ethics Committee by telephone at (08) 8201 5962 or by email sandy.huxtable@flinders.edu.au

APPENDIX 18: Postcard – text



Flinders University, S.A.

Just a friendly reminder...

A few weeks ago you received a Social Quality Questionnaire asking you to assist us in assessing social quality in Australia by filling out and returning the questionnaire.

If you have not had a chance to complete the questionnaire yet, I would be grateful if you would volunteer your time to assist in this project by completing the attached questionnaire and returning it in the addressed, pre-paid envelope provided in the previous mail-out.

This message has gone to everyone in the selected sample population whose response has not yet been received. Thank you for your attention and assistance.

Yours Sincerely,

Paul Ward

PLACE STAMP HERE

Name
Address
Address
City, State, Zip Code

Associate Professor Paul Ward - Head, Department of Public Health
School of Medicine, Health Sciences Building, Registry Road
Flinders University • Adelaide, 5001

APPENDIX 19: Postcard – Front image

Flinders
UNIVERSITY
ADELAIDE • AUSTRALIA

Department of Public Health

Social Quality Research 2009

Publications

Peer-reviewed journal articles

Trust in the health system: an analysis and extension of the social theories of Giddens and Luhmann

Meyer, S. B., P. R. Ward, J. Coveney and W. Rogers (2008). "Trust in the health system: an analysis and extension of the social theories of Giddens and Luhmann." Health Sociology Review **17**(2): 177-186.

Abstract

Social theory provides a lens through which we can analyse the role of trust in health systems; however, the majority of theoretically informed trust literature addresses 'institutional' or 'interpersonal' trust individually, failing to investigate trust as being determined by a 'web' of mutually interacting relationships between individuals and social systems. Current theoretical assumptions are also problematic as they fail to recognize the role that social factors (such as socioeconomic status, class and age) play in an individual's willingness to trust. Through the analysis and critique of existing social theories of trust, this paper demonstrates a need for further empirical research into the multidimensionality of trusting relationships, while suggesting new directions for research in public health.

Keywords: sociology, trust, social theory, health system, Giddens, Luhmann

Introduction

Sociology has been, and continues to be, fundamental in understanding the complex role that trust plays in the relationship between society and health systems, which extends to relationships between patient, physician, health systems, and broader social systems (for example, economic, political, judicial) that impact health. Through the study of social organisation, institutions, and the development of society, sociology builds theoretical frameworks through which we can view trust in a health setting. The application of social theory provides a useful conceptual framework for exploring trust (Brown, 2008), and can be used as a lens through which we can analyse the role of trust in health systems. However, it has been argued that the subject of trust theory is 'disembodied', causing serious limitations to its scope and usefulness (Beasley and Bacchi, 2007). This paper specifically addresses the limitations of the trust theories of Anthony Giddens and Niklas Luhmann. Giddens addresses trusting relationships between the individual and the system, while Luhmann looks at the relationships and mutual interaction between social systems. While both offer compelling insight into the concept of trust, this paper challenges several of their theoretical assumptions, and offers suggestions for

the necessary reconstruction of their theories before continuing empirical investigation; a move towards a more comprehensive way of researching trust in healthcare.

Social theories of trust: why do we need them?

The concept of trust has become a major topic of interest in medical and health service literature in the last decade. In the years 1995-2003, there were 1612 articles on the topic of trust in medical and health literature, compared with 764 in the preceding 15 years (Schlesinger et al., 2005). While useful for understanding the impact that trust has on health promotion and illness prevention, much of the literature fails to define or explain adequately the theory of trust. A significant amount of the empirical work that has been conducted on trust in health systems has dealt only with the conceptualization and description of trust rather than using a strong theoretical foundation. For example, social capital has been used in numerous studies investigating the link between socioeconomic status and inequalities in health (Kawachi et al., 1997, Kim et al., 2006, Lochner et al., 2003, Subramanian et al., 2003). The majority of this research looks at *trust as a variable* but fails to account for the complexity of *trust as a process* (Khodyakov, 2007). Whilst trust is undoubtedly an important domain of social capital (Bourdieu, 1984, Carpiano, 2006), the application of social theories of trust would question its measurement in the current social capital literature.

Luhmann (1988:100) argues that “a conceptual distinction is not yet an empirical theory”. In other words, while defining and describing trust helps to differentiate it from other concepts, a theoretical framework is necessary to view the foundations of trust and explain how it is (re)produced (Mollering, 2001). Applying theory to research affords the opportunity to measure trust as a changing process. Theory provides a broad framework which shapes society’s view of the world (Cooper, 2001) and in order to analyse trust in health systems, there must first be a theoretical framework.

This paper specifically deals with the theories of Giddens and Luhmann because they have both been consistently cited in the majority of theoretically informed literature on trust (Andreassen et al., 2006, Bordum, 2004, Bordum, 2005, Brownlie and Howson, 2005, Gilson, 2003, Lupton, 1997, Mechanic and Meyer, 2000, Pearson et al., 2005, Salvatore and Sassatelli, 2004, Ward and Coates, 2006).

Giddens and Luhmann specifically recognise two types of trust; institutional (Luhmann, 1990) (also termed abstract (Giddens, 1991), systems based (Fukuyama, 1995) or faceless (Giddens, 1994)) and interpersonal (Fukuyama, 1995) (also termed facework (Giddens, 1994)). Both regard interpersonal trust as being negotiated between individuals (a decision to trust someone or not) and as a learned personal trait. Russell's (2005:1397) argument that interpersonal trust in healthcare is *"built, sustained or damaged through face-to-face encounters with health providers and is more likely to increase with long-term doctor-patient relationships"* supports both Giddens' and Fukuyama's theories that trust in the system is dependent on trust in the system's representative (Fukuyama, 1995, Giddens, 1990). Institutional trust is the trust that is placed in the system or institution. In health systems, this is trust placed in the medical system (or in Luhmann's case, also the social systems that influence and interact with the medical system). Indeed, Gilson (2005:1382) argues that "trust occurs in different types of relationships and is rooted in a combination of interpersonal behaviours and institutions that underpin those behaviours". Both practitioners and medical institutions (for example, hospitals, GP surgeries) must provide a trustworthy environment, as failing to do so has the potential to undermine the public's overall trust in the health system (Rhodes and Strain, 2000).

As noted earlier, while social theory provides a useful conceptual framework for exploring trust, there are serious limitations to its scope and usefulness in practical, real life situations. Since the theories of Giddens and Luhmann are covered quite extensively in sociological literature, this paper does not aim to provide a detailed summary of their work as a whole. Rather, the first aspect of this paper provides an explanation of the aspects of their theories that are relevant to understanding the critiques and limitations we present; including their analyses of modernity and reflexivity, and the way in which trust functions in (or for) society. The second, more central aspect of the article is a critical analysis challenging several theoretical assumptions as well as limitations concerning their analyses of trust. Furthermore, our analysis offers suggestions of new directions for which trust can be reformulated and further developed with contemporary theoretical perspectives that afford the possibility for a more comprehensive practical application in real life situations. The ultimate goal of such an endeavour regarding health systems will be both understanding and responding to distrust, and building on areas of trust; both of

which will be necessary for the smooth functioning[1] of social systems, and society at large.

Why is trust important to public health?

Mechanic and Meyer (2000:657) state that *'trust is fundamental to effective interpersonal relationships and community living'*, and therefore a decline in trust may lead to continuous vigilance and anxiety within society (Crawford, 2004). In terms of healthcare, the trustworthiness of individual health professionals, healthcare institutions (for example, hospitals, health centres, GP clinics) and other forms of professionalised knowledge, are all essential for health systems to function in the interest of society (Rhodes and Strain, 2000). Health system representatives (for example, healthcare professionals) at all levels have to convince their patients to share personal information, details about their symptoms, submit to tests, and take potentially poisonous chemicals into their bodies. In order for patients to permit these procedures and release personal information, a concordant relationship between the patient and physician is imperative; the aim of concordant relationships is the establishment of a therapeutic *alliance* between a physician and patient (Bell et al., 2007), rather than patient dependence. Trust plays a major role in concordant relationships since they require the professional to communicate with the patient so that he/she is aware of their specific interests and is familiar enough with the professional to be assured of their care and competence (Brown, 2008). Trust in health systems and health professionals has been shown to increase a patient's willingness to seek care and utilise health services (Russell 2005), encourage patients to submit and adhere to treatment (Hall et al., 2001), enhance the quality of interaction between patients and physicians, facilitate disclosure by patients, enable providers to encourage necessary behavioural changes, and may grant patients more autonomy in decision making about treatments (Gilson, 2003).

As a fundamental dimension of the effectiveness of a health system, the function of trust warrants serious consideration in public health research. In the past decade,

[1] When arguing that trust is imperative for the smooth functioning of any health system, we recognize that the idea of a 'smooth functioning' system is intrinsically impossible; however, this paper takes a functionalist approach in presenting agents as having a responsibility for keep the smooth functioning of society. We acknowledge that functionalism assumes equal power within society; however, it is not a central component of this paper. Rather, in recognizing this weakness we put forward the need for further empirical work to investigate.

trust has become of major interest due to a decline in the trustworthiness of several democratic systems with a range of health system arrangements (Canada, US, UK, Sweden) (Hardin, 2006), and the emergence of so-called 'high trust' and 'low trust' societies (Fukuyama, 1995). Empirical literature has highlighted declining levels of trust in health care along with other institutions (Russell, 2005, Gilson, 2003, Welsh and Pringle, 2001, Mechanic and Meyer, 2000, Davies, 1999, Birungi, 1998). This may be linked to broader epistemological challenges about the authenticity of knowledge (Popay et al., 2003, Williams, 2000, Williams and Popay, 2001), decresing confidence in the power of science (Irwin and Michael, 2003, Wynne, 1992, Wynne, 1996, Wynne, 2001), increasing individual and societal reflexivity (Giddens, 1994), and the capacity of experts to deliver to us control over our bodies (Crawford, 2004, Scambler and Britten, 2001). To compound the increasing levels of distrust, Luhmann (1979:16) argues that *"one should expect trust to be increasingly in demand as a means of enduring the complexities of the future which technology will generate"*. In other words, in the future, the whole notion of trust will become increasingly important.

In addition, the lay populace is constantly bombarded with 'health messages' which are often conflicting, contradictory and change over time, which has lead many theorists to suggest that we are all in a state of liminality or 'no mans [sic] land' (Armstrong, 1993, Bauman, 1987, Gifford, 2002). The consequences of such liminality are that lay people begin to question the validity of medical knowledge and hence, the 'trustfulness' of both medical practitioners and the system on which their knowledge is based. In this way, trust in the health system (or any other social system) can no longer be simply taken for granted or expected; it has to be worked on and won, through a process of negotiation (Giddens, 1991).

Trust provides an important lens through which we can view significant relationships within health systems because it highlights dimensions of these relationships that are often unrecognised, while providing new insights into how to potentially improve health system management (Gilson, 2005). It is important to understand trust relationships that have an impact on the functioning of a health system so that any changes that need to be made to improve trust in health systems can be determined (Hardin, 2006).

A theoretical understanding of trust: Giddens and Luhmann

Both Giddens and Luhmann have made significant contributions to trust literature; however, the following discussion is limited to depicting only prominent themes in Giddens' and Luhmann's theories that are crucial for developing a critique of their work: 1. the conceptualisation of trust; 2. trust in modernity; 3. notions of reflexivity; and 4. trust as a function in (or for) society.

How is trust conceptualized?

Giddens says that trust rests on a vague and partial understanding (Giddens, 1990). Some decisions are based on inductive inferences from past experiences that are believed in some way to be reliable for the present. In order for someone to trust (rather than base a decision on rational choice), their decision must *combine* good reason (from past experience), with a further element that satisfies their 'partial understanding' (Giddens, 1991); similar to Simmel's notion of a 'leap of faith' (Mollering, 2001).

Trust invested in people or in abstract systems is made on the basis of a 'leap of faith' which brackets[2] out ignorance or lack of information (Giddens, 1991). Giddens suggests this may be linked to a quasi-religious element or ontological security, drawing upon society's sense of safety in the continuity and order of the world and its events (Giddens, 1991). He describes it as a commitment to something other than just cognitive understanding (Brownlie and Howson, 2005). Trust is only required where there is ignorance; there is no need to trust in a situation of complete knowledge (Giddens, 1991).

Luhmann addresses the concept of trust in terms of its function in society (Luhmann, 1988), which fits with his overarching structural-functionalist theory. He argues that trust is the glue that holds everything together in social life because it reduces the complexity of how individuals think about the world around, providing them with the capability to act and make decisions (Pearson et al., 2005). The decision to place trust or distrust reduces complexity in society because both decisions function as way to pursue individual actions rationally (Luhmann, 1979). Systems need to reduce complexity in order to function properly, and with increasing complexity, the need for assurances through trusting relations grows accordingly (Borch, 2005).

[2] Giddens often uses the term 'brackets'. Bracketing in this sense means to remove or compensate for what we are lacking.

Trust is best understood in a multidimensional sense (Brown, 2008), with trust in one social system being highly dependent on trust in other social systems, and psychic systems[3] (Luhmann 1979). Trust is a medium of interaction between modern society's systems, and those system's representatives, *"Trust occurs in a framework of interaction which is influenced by both personality and social systems, and cannot be exclusively associated with either"* (Luhmann 1979:6).

Both Luhmann and Giddens conceptualisations of trust are in need of further investigation and research as they do not attempt to address the 'partial understanding' that bridges the gap between knowledge and ignorance in an individual's decision to trust. This gap will be discussed in the second section of this paper.

Modernity

A key component to understanding Giddens' theory of trust is a process he calls 'reflexive modernisation' (Beck et al., 1994). In his book *Consequences of Modernity,* Giddens talks about how modern social forces such as the expansion of electronic communication, have made the interpenetration of self-development and social systems more pronounced (Giddens, 1991). This expansion has played a central role in mediating the organisation of social relations and in turn, has created a demand for expert systems. Expert systems of knowledge now penetrate nearly all aspects of social life in conditions of modernity (Giddens, 1991, Habermas, 1997, Scambler and Britten, 2001) – for example, the food we eat, medicines we take.

Giddens (1991) points out that whilst we are more and more dependent on expert systems over which we have little knowledge and control, we acknowledge that expert systems cannot themselves adequately anticipate the future. This acknowledgement has resulted in what Giddens calls the 'sequestration of experience' (Giddens, 1991:144), also described as 'lay re-skilling' (Hibbert et al., 2002) - the myriad ways in which lay people seek to take back control over their own lives, either through a rejection of certain aspects of technology (for example, the growth of complementary and alternative medicine) or through 're-appropriating' different forms of technology for use by themselves (for example, self care).

Giddens (along with Beck) argues that society is constantly forced to anticipate outcomes and assess risk as a result of modernity and increased reflexivity. As

[3] Luhmann's use of this term refers to individual agents.

modern circumstances of uncertainty increase, the notions of trust and risk come to have particular applications in the functioning of society (Giddens, 1991). Giddens (1991) says that "to live in modernity is to live in an environment of chance and risk", which fits with Beck's theory of the risk society (Beck, 1992, Beck, 2005). Risk is now conceptualised as a fundamental means by which lay people and technical specialists organise the world (Giddens, 1991). In modernity, society is continually drawn into the present through reflexive organisation and constantly forced to anticipate outcomes and assess how things are likely to diverge (Giddens, 1991). Risk is an important aspect of trust because it adds another aspect to partial understandings. What or how much is at risk has a substantial influence on a decision to trust.

Luhmann's central thesis around the move to modernity is that social and personal systems strive to reduce complexity. Luhmann argues that if there is no risk *considered*, there is confidence or expectation rather than trust (Luhmann, 2005). The awareness of risk is what moves an individual's decision from the assumption of confidence, to one where trust is required (Luhmann, 1988). He then goes on to distinguish trust from confidence (Luhmann, 1988), arguing that individual trust takes into account both past experience *and* the associated risks involved in the decision to trust, whereas confidence occurs when no alternatives are considered and decisions rely solely on expectation (Luhmann, 1988). For Luhmann, the notion of time is also a central concern in relation to trust, and he outlines the problematic relationship between trust and time. *"To show trust is to anticipate the future. It is to behave as though the future were certain."* (Luhmann 1979:10). Giddens and Simmel deal with this problem by linking trust with 'leaps of faith' or 'blending ignorance and knowledge' (Giddens, 1991, Mollering, 2001). Whilst Luhmann acknowledges the unavoidable contingencies in the decision to trust, he shows how individuals and social systems limit the horizons of trust by reducing the complexity of 'their' worlds.

It is important here to draw a distinction between Giddens' and Beck's conceptualisation of risks as 'bads' and Luhmann's conceptualisation of risks as 'possibilities', since it has an obvious implication for trust – one would link trust only to 'bads' and the other to 'possibilities'.

Trust as a Function of (or for) Society

In this section of the paper, we draw together some of the previous discussion by exploring the ways in which Giddens and Luhmann see trust as a function of (or for) society. In essence, Giddens regards trust as a response to an increasingly reflexive society, whereas Luhmann regards trust as both the outcome of, and function for responding to an increasingly complex society.

Since we have already covered issues of reflexive modernisation, we turn our attention here to Giddens' ideas about the function of trust in the structure-agency dialectic. Giddens argues that trust acts as a medium of interaction between modern society's systems and the representatives of those systems (Giddens, 1991), which fits with his overarching Structuration Theory. The grounds for this interaction are referred to as access points; the meeting ground for what he terms 'faceless' and 'facework' commitments (Giddens, 1990). Facework commitment is dependent on the demeanour of the 'expert' (in health systems, the physician, or other health professionals). Their level of professionalism, mannerisms, and other aspects of their personality affect our impression and expectation of them. Alternatively, faceless commitment is the perceived legitimacy, technical competence, and the ability of the 'expert system' (for example, the medical system). As noted earlier, Giddens (1990) says that trust is sustained through facework commitments - *trust in the physician is required in order to have trust in the medical system*. The access point is the meeting ground between the physician and the medical system, whereby the physician is seen to represent the medical system; *"Although everyone is aware that the real repository of trust is in the abstract system, rather than the individuals who in specific contexts 'represent' it, access points carry a reminder that it is the flesh-and-blood people (who are potentially fallible) who are its operators"* (Giddens 1990:85). In other words, Giddens argues that institutional trust presupposes and is determined by interpersonal trust.

For Luhmann, trust is seen as both an outcome of, and response to increasing complexity in society. Individuals have come to depend on learning and confirming trusting relationships between the boundaries of internal systems and the external environment (Luhmann, 1988). For instance, a patient can learn to trust a surgeon (who is part of an external system – the medical system) that they have never met, and do not know anything about in terms of demeanour or personality. However, they may have learned to trust between the boundaries of systems and believe that both the health system and the medical professional (the surgeon) will operate in their best interest (Russell, 2005). The differentiation of the approaches to

trust/distrust (internal vs. external), is rational from the point of the system because it helps it to preserve the higher level of inner order, in comparison to its external environment. If the patient did not trust the surgeon but instead, asked the neighbour who is a pilot (who they trusted) to do their surgery, complication and chaos would result and their action would not be rational. The inner order helps to stabilise an extremely complex environment by organising a less complex system-order that is better suited to human capacities for action (Luhmann, 1988).

This paper offers fairly comprehensive coverage of Giddens work however; elements of Luhmann have not been included and must be acknowledged. Along with his work discussed within this paper, Luhmann discusses trust as a major component in the reduction of complexity between and within modern social systems, and the role of familiarity in trusting[4].

Towards a more comprehensive social theory of trust

Giddens and Luhmann have both been influential in the pursuit of understanding trust, and they have both made significant contributions to understanding the complex trust relationships that exist between and within different social groups, systems, levels, and relationships; however, both are purely theorists and never tested their work empirically. The following critiques aim to identify the gaps in Giddens' and Luhmann's work in order to provide contemporary theoretical perspectives for future empirical research that investigates how trust plays out in the real world. The idea of developing a further social theory of trust is not to refute or dismantle the theories of Giddens and Luhmann but instead, to move towards a more *comprehensive* social theory of trust that can be directly applied to understanding and evaluating the function of trust in health systems.

As previously outlined, in order to fully understand trust, it is essential to address the role that both interpersonal and institutional trust play in society. Giddens maintains that interpersonal trust is necessary before there is potential for institutional trust; that trust is linear, while Luhmann argues the reverse, that trust in the system is necessary before an individual can have trust in the system's representative. By constructing their theories of trust relationships as linear, both ignore the web of

[4] For further information on Social Systems Theory and familiarity, see Luhmann (1979; 1988)

interactive relationships that may influence individual trust. Rather than linear, trusting relationships can be understood as a complex 'web of interaction'. Lewis and Weigert (1985:974) argue that "an adequate sociological theory of trust must offer a conceptualization of trust that bridges the interpersonal and systemic levels of analysis, rather than dividing them into separate domains". This idea has been discussed by Ward and Coates (2006) when their findings suggested that the discourse of mistrust presented at a number of inextricably linked levels and related to multiple social systems. While participants in their study spoke about a lack of trust in local GPs, this could not be separated from the mistrust of both local and national healthcare and wider social systems (Ward and Coates, 2006). However, after extensive literary review, no other empirical trust literature addresses trusting relationships as a multidimensional web, presenting a need for further investigation into the relationships (individual and system level) that affect trust.

The contradiction between Giddens' and Luhmann's two conflicting views presents opportunity for empirical investigation. Determining the relationship between interpersonal and institutional trust is essential to understanding the role of trust in health systems. If trust is the result of complex relationships/interactions between the physician, the medical system, and broader social systems that influence the health system, trust on all levels needs to be addressed when determining how to improve trust within health.

As stated earlier, Giddens (1991) argues that in modernity, society is continually drawn into the present through reflexive organisation and is constantly forced to anticipate outcomes and assess how things are likely to diverge. However, gaps in this theory become obvious when applied to practical real life situations. Giddens argues that modern individuals have become sceptical about modern institutions (such as science); that they are no longer simply accepting the judgements of experts but rather, trust in modernity must be worked on and won (Giddens, 1991). However, in reality, numerous factors including new communication technologies and advances in knowledge transfer have significantly altered the landscape in which individuals question the judgment of experts. There are for example, vast gaps between the information rich and the information poor (Elliot, 2002); and individuals who are information poor lack the resources for questioning experts, and therefore, are not making a reflexive *choice* to trust. The information poor cannot utilize all the available resources for decision making (lack of information or access to information) and may find themselves further disadvantaged and marginalized in

a new world order of reflexive modernisation (Elliot, 2002). This idea has been termed ‘stratified reflexivity’ which conceptualises the reality of the structural patterning of reflexivity that exists in society (Ward, 2006).

For instance, Giddens fails to pay significant attention to the role played by gender, age, social class, ethnicity, nationality and so on in constructing differing risk experiences (Alexander, 1996), and therefore, the decision to trust. Giddens agrees that technology transfer has increased complexity in society, but he does not address the interdependence it also creates. Interdependence, in situations where there is a lack of information, implies more dependency and less reflexivity or self-sufficiency. Institutions are necessary and must function effectively in the context of societal interdependence in spite of distrust. The vested interests of the dependent individual are thus vulnerable to the actions of others (Bluhm, 1987). Within healthcare, the ‘information rich’ may have the means to investigate alternative therapies or seek forms of self-healing when they mistrust their physician. Conversely, the ‘information poor’ may not have access to similar information, and may have no choice but to depend on their physician for medical advice. However, “to argue that principles in complex society have no choice but to trust is far too simple. Indeed, there is enormous variability in the extent to which, and the conditions under which, they exercise that choice” (Shapiro, 1987). Further empirical research is required to determine what these variables are, and under what conditions individuals trust.

Trust is best conceptualized as a multi-faceted phenomenon with distinct cognitive, emotional and behavioural dimensions; all of which must be comprehended sociologically as having varying levels of importance for individuals (Lewis and Weigert, 1985). The cognitive attitude is present in all forms of trust, but the experience and rationality that reinforces the cognitive ‘leap’ varies considerably (Lewis and Weigert, 1985). The strength and importance of the cognitive versus the emotional base of trust depends on the type of social relationship, the situation, the system under consideration (Bonoma 1976 cited in Lewis and Weigert 1985), as well as the personal characteristics of the individual.

A number of factors affect our ability to act as reflexive agents; level of dependency, social/cultural networks, individual weight in variables of trust, as well as numerous other factors beyond the realm of this paper. Further empirical research is

necessary and may afford insight into the practicality of reflexivity as a factor in an individual's decision to trust.

One final remark on the work of Giddens and Luhmann forms the basis for a research question rather than a critique. Along with other prominent trust theorists (Simmel, Fukuyama) both theorists discuss trust in situations where there is a shortfall of information. As noted earlier, for Giddens the shortfall is compensated for by a 'leap of faith' which can be understood as intuition; an act of knowing or sensing without the use of rational processes. For Luhmann, trust always extrapolates from available evidence. When the available evidence is not sufficient, risks are weighted against the potential positive outcomes. Luhmann (1979:26) argues,

"Although the one who trusts is never at a loss for reasons and is quite capable of giving an account of why he [sic] shows trust in this or that case, the point of such reasons is really to uphold his [sic] self-respect and justify him [sic] socially. They prevent him [sic] from appearing to himself [sic] and others as a fool, as an inexperienced man ill-adapted to life, in the event of his [sic] trust being abused. At most, they are brought into account for the placing of trust, but not for trust itself. Trust remains a risky undertaking".

While we recognise that a gap between knowledge and ignorance exists, the explanation of this 'gap' remains fairly abstract and is in need of empirical investigation. In understanding why people place trust, whether based upon experience, knowledge, or faith, there is potential to gain insight on how to encourage trust in health systems. However, we may also look at this challenge as one that is out of the realm of sociology; a challenge of epistemological or psychoanalytical nature. Extensive empirical literature poses the argument that trust is quantifiable; however can we ever really measure and bring to view what constitutes the bridge between knowledge and ignorance? This question remains an important one in need of further investigation. Theoretical expansion and further empirical research may provide insight into whether we can ever really understand *why* people trust.

Concluding remarks and areas for further empirical investigation

Social theory is beneficial to public health because it helps us to understand how, where, and why trust functions in society. This paper is an effort towards identifying

the gaps that continue to exist in current trust theories, while suggesting future directions for empirical research. Future research may help to identify modes and possibilities for health system transformation, through understanding the variables and conditions under which people trust.

Luhmann poses a question which may form a research programme within public health; *"it is all too obvious that the social order does not stand and fall by the few people one knows and trusts. There must be other ways of building trust which do not depend on the personal element. But what are they?"* (Luhmann 1979:46). Luhmann then proceeds to explore and explain the importance of trust in social systems (and of social systems trusting each other) from a theoretical perspective; the question however, remains a useful one that is worthy of empirical investigation.

Future empirical research must be based on a more comprehensive and contemporary social theory of trust. While this paper offers insight into the current gaps in theoretical trust research, there is a need for further investigation through extensive, theoretically based empirical work. Studying the conditions or determinants of trust is more useful to than to attempt a further definition of trust (Butler 1991 cited in Hosmer 1995). Butler (1991:647) argues "currently there is no agreement to what these trust conditions are, and there is not instrument for measuring an exhaustive set of them" (cited in Hosmer 1995). Until we can determine what the conditions, determinants, and variables of trust are, we cannot anticipate positive changes in, nor act to alter the declining levels of trust in healthcare. This issue warrants serious consideration for public health and should be included in future health research agendas.

References

Alexander, J. (1996) 'Critical Reflections on 'Reflexive Modernization'' Theory, Culture & Society 13: 133-138.

Andreassen, H. K., Trondsen, M. P. E., Kummervold, P. E., Gammon, D. & Hjortdahl, P. (2006) 'Patients Who Use E-Mediated Communication With Their Doctor: New Constructions of Trust in the Patient-Doctor Relationship ' Qualitative Health Research 16: 238-248.

Armstrong, D. (1993) 'Public health spaces and the fabrication of identity' Sociology 27: 393-410.

Bauman, Z. (1987) Legislators and Interpreters: On Modernity, Postmodernity and Intellectuals, Cambridge, Cambridge University Press.

Beasley, C. & Bacchi, C. (2007) 'Envisaging a new politics for an ethical future' Feminist Theory 8: 279-299.

Beck (1992) Risk Society: Towards a New Modernity, London, SAGE Publications
Beck (2005) World Risk Society, Cambridge Polity Press.

Beck, Giddens, A. & Lash, S. (1994) Reflexive Modernization: Politics, Tradition and Aesthetics in the Modern Social Order, Oxford, Polity Press, Blackwell Publishers.

Bell, S. J., Airaksinen, M. S., Lyles, A., Chen, T. F. & Aslani, P. (2007) 'Concordance is not synonymous with compliance or adherence' British Journal of Clinical Pharmacology 64: 710-713.

Birungi, H. (1998) 'Injections and self-help: risk and trust in Ugandan health care' Social Science and Medicine 47: 1455-1462.

Bluhm, L. H. (1987) 'Trust, Terrorism, and Technology' Journal of Business Ethics 6.

Borch, C. (2005) 'Systemic Power: Luhmann, Foucault, and Analytics of Power' Acta Sociologica 48.

Bordum, A. (2004) Trust as a Critical Concept – WORKING PAPER. Copenhagen: Center of Market Economics Copenhagen Business School.

Bordum, A. (2005) Trust and Leadership on The Value Laden Concept of Trust - WORKING PAPER. Copenhagen: Center of Market Economic Copenhagen Business School.

Bourdieu, P. (1984) Distinction: A Social Critique of the Judgement of Taste, London, Routledge.
Brown, P. R. (2008) 'Trusting in the New NHS: instrumental versus communicative action' Sociology of Health & Illness 30.

Brownlie, J. & Howson, A. (2005) ''Leaps of Faith' and MMR: An empirical Study of Trust' Sociology 39: 221-239.

Carpiano, R. M. (2006) 'Toward a neighborhood resource-based theory of social capital for health: Can Bourdieu and sociology help?' Social Science and Medicine 62: 165-175.

Cooper, G. (2001) 'Conceptualising Social Life' in Gilbert, N. (Ed) Researching Social Life. London: Sage.

Crawford, R. (2004) 'Risk Ritual and the Management of Control and Anxiety in Medical Culture' Health: 8: 505-528.

Davies, H. (1999) 'Falling public trust in health services: implications for accountability' 4: 193-194.

Elliot, A. (2002) 'Beck's Sociology of Risk: A Critical Assessment' Sociology 36: 293-315.

Fukuyama, F. (1995) Trust: The Social Virtues and the Creation of Prosperity, New York, NY, Free Press Paperback.

Giddens, A. (1990) The Consequences of Modernity, Stanford California, Stanford University Press.

Giddens, A. (1991) Modernity and Self-Identity: Self and Society in the Late Modern Age, Stanford California, Stanford University Press.

Giddens, A. (1994) 'Risk, trust, reflexivity' in Beck, U., Giddens, A. & Lash, S. (Eds) Reflexive
Modernization: Politics, Tradition, and Aesthetics is the Modern Social Order. Cambridge: Polity Press.

Gifford, S. (2002) 'The meaning of lumps: a case study of the ambiguities or risk' in Nettleton, S. & Gustafsson, U. (Eds) The Sociology of Health and Illness Reader. Cambridge: Polity.

Gilson, L. (2003) 'Trust and the development of health care as a social institution' Social Science and Medicine 56: 1453-1468.

Gilson, L. (2005) 'Editorial: building trust and value in health system in low-and middle-income countries' Social Science and Medicine 61: 1381-1384.

Habermas, J. (1997) The Theory of Communicative Action. Volume 1. Reason and Rationalization of Society., Cambridge, Polity Press.

Hall, M. A., Dugan, E., Zheung, B. & Mishra, A. K. (2001) 'Trust in Physicians and Medical Institutions: What IS IT, Can It Be Measured, and Does It Matter? ' The Milbank Quarterly 79: 613-639.

Hardin, R. (2006) Trust, Cambridge, Polity Press.

Hibbert, D., Bissell, P. & Ward, P. R. (2002) 'Consumerism and professional work in the community pharmacy' Sociology of Health & Illness 24: 46-65.

Irwin, A. & Michael, M. (2003) 'Ethno-epistemic assemblages: heterogeneity and relationality in scientific citizenship' Science, Social Theory and Public Knowledge. Maidenhead: Open University Press.

Kawachi, I., Kennedy, B. P., Lochner, K. & Prothrow-Stith, D. (1997) 'Social capital, income inequality, and mortality' American Journal of Public Health 87: 1491-1498.

Khodyakov, D. (2007) 'Trust as a Process: A Three-Dimensional Approach' Sociology 4: 115-132.

Kim, D., Subramanian, S. V. & Kawachi, I. (2006) 'Bonding versus bridging social capital and their associations with self rated health: a multilevel analysis of 40 US communities' 60: 116-122.

Lewis, D. J. & Weigert, A. (1985) 'Trust as a Social Reality' Social Forces 63: 967-985.

Lochner, K. A., Kawachi, I., Brennan, R. T. & Buka, S. L. (2003) 'Social capital and neighborhood mortality rates in Chicago' Social Science and Medicine 56: 1797-1805.

Luhmann, N. (1979) Trust and Power: Two works by Niklas Luhmann, Brisbane, John Wiley & Sons.

Luhmann, N. (1988) 'Trust: Making and Breaking Cooperative Relations ' in Gambetta, D. (Ed) Familiarity, Confidence, Trust: Problems and Alternatives. New York, NY: Basil Blackwell.

Luhmann, N. (1990) 'The Paradox of System Differentiation and the Evolution of Society' in Alexander, J. & Colomy, P. (Eds) Differentiation Theory and Social Change. New York: Columbia University Press.

Luhmann, N. (2005) Risk: A Sociological Theory, New Brunswick, New Jersey, Transaction Publishers.

Lupton, D. (1997) 'Consumerism, Reflexivity and the Medical Encounter' Social Science and Medicine 45: 373-381.

Mechanic, D. & Meyer, S. (2000) 'Concepts of trust among patients with serious illness' Social Science and Medicine 51: 657-668.

Mollering, G. (2001) 'The Nature of Trust : From Georg Simmel to a Theory of Expectation, Interpretation and Suspension' Sociology 35: 403-420.

Pearson, S., Crane, S. & Mont, M. C. (2005) Analysis of Trust Properties and Related Impact of Trusted Platforms. Hewlett-Packard Development Company.

Popay, J., Bennett, S., Thomas, C., Williams, G., Gatrell, A. & Bostock, L. (2003) 'Beyond 'beer, fags, egg and chips'? Exploring lay understandings of social inequalities in health' Sociology of Health & Illness 25: 1-23.

Rhodes, R. & Strain, J. J. (2000) 'Trust and Transforming Medical Institutions' Cambridge Quarterly of Healthcare Ethics 9: 205-217.

Russell, S. (2005) 'Treatment-seeking behaviour in urban Sri Lanka: Trusting the state, trusting private providers' Social Science and Medicine 61: 1396-1407.

Salvatore, A. & Sassatelli, R. (2004) Trust and Food. A theoretical discussion. Consumer Trust in Food - A European Study of the Social and Institutional Conditions for the Production of Trust
Bologna, Italy: University of Bologna.

Scambler, G. & Britten, N. (2001) 'System, lifeworld and doctor-patient interaction: issues of trust in a changing world' in Scambler, G. (Ed) Habermas, Critical Theory and Health. London: Routledge.

Schlesinger, M., Quon, N., Wynia, M., Cummins, D. & Gray, B. (2005) 'Profit-Seeking, Corporate Control, and the Trustworthiness of Health Care Organizations: Assessments of Health Plan Performance by Their Affiliated Physicians ' Health Services Research 40: 605-645.

Shapiro, S. P. (1987) 'The Social Control of Impersonal Trust' The American Journal of Sociology 93: 623-658.

Subramanian, S. V., Lochner, K. A. & Kawachi, I. (2003) 'Neighborhood differences in social capital: a compositional artifact or a contextual construct?' 9: 33-44.

Ward, P. (2006) 'Trust, reflexivity and dependence: a 'social systems theory' analysis in/of medicine' European Journal of Social Quality 6: 143-158.

Ward, P. & Coates, A. (2006) '"We shed tears, but there is no one there to wipe them up for us": narratives of (mis)trust in a materially deprived community.' Health: an Interdisciplinary Journal for the Social Study of Health, Medicine and Illness 10: 283-301.

Welsh, T. & Pringle, M. (2001) 'Social capital. Trusts need to recreate trust' British Medical Journal 323: 177-178.

Williams, G. (2000) 'Knowledgeable narratives' Anthropology & Medicine 7: 135-140.

Williams, G. & Popay, J. (2001) 'Lay health knowledge and the concept of the lifeworld.' in Scambler, G. (Ed) Habermas, Critical Theory and Health. London: Routledge.

Wynne, B. (1992) 'Misunderstood misunderstanding: social identities and the public uptake of science' Public Understanding of Science 1: 281-304.

Wynne, B. (1996) 'May the sheep safely graze? A reflexive view of the expert-lay knowledge divide' in Lash, S., Szerszynski, B. & Wynne, B. (Eds) Risk, Environment and Modernity: Towards a New Ecology. London: Sage.

Wynne, B. (2001) 'Expert discourses of risk and ethics on genetically manipulated organisms: the weaving of public alienation' Notizie di Politeia 17: 51-76.

Do your patients trust you?: a sociological understanding of the implications of patient mistrust in healthcare professionals

Meyer, S. B. and P. R. Ward (2008). "Do your patients trust you?: a sociological understanding of the implications of patient mistrust in healthcare professionals." Australasian Medical Journal **1**(1): 1-12.

Samantha B Meyer*
PhD Candidate
Department of Public Health
Flinders University, Adelaide
e-mail: **meye035@flinders.edu.au**

Paul Ward
Associate Professor of Public Health Research
Department of Public Health
Flinders University, Adelaide
e-mail: **paul.ward@flinders.edu.au**

* Corresponding Author

Word count for paper: 2744

Abstract

The trust that patients invest in healthcare professionals and their advice has been shown to facilitate positive clinical outcomes, although there is evidence that patient trust in expertise, including healthcare professionals, has been declining over the years. Questions about whether or not to trust healthcare professionals have been raised recently in international media by Australian pop icon Kylie Minogue, who spoke of her alleged initial misdiagnosis with breast cancer and went on to tell women that they should 'follow their intuition' rather than placing unquestioning trust in doctors or medical advice. Given the power of the media in shaping public opinion, there is a potential for such stories to further impact on the already potentially friable doctor-patient relationships, with questions of trust taking centre-stage. Therefore, an understanding of the nature of trust, in addition to the reasons for the decline in patient trust, is exceedingly important for health professionals.

This paper presents an overview of social theories of trust that provide a lens through which we can analyse the development of mistrust in healthcare, and identifies ways in which healthcare professionals may aim to facilitate and sustain patient trust.

Introduction

"I was misdiagnosed initially. So my message to all of you, and to everyone at home is, because someone is in a white coat and using big … medical instruments, doesn't necessarily mean they're right. And the amount of stories that I have heard of women going in for diagnosis, being told 'don't you worry about at thing, it's fine'… yeah so I guess you know, you follow your intuition." (Kylie Minogue, on the Ellen Degeneres Show)

The above quote was taken from an American talk show (The Ellen Degeneres Show, April 8, 2008). Ellen interviewed celebrity icon Kylie Minogue regarding her breast cancer misdiagnosis. Kylie appeared on Ellen in April of 2008 and shared her experience, giving the audience advice to 'follow their intuition' rather than making the assumption that their physician is always providing the right medical information. This 'trust in intuition' may be at odds with 'trust in medical advice' within the world of evidence-based medicine, and speaks to the difference between 'experiential/lay knowledge' and 'expert/professional knowledge'.[1]

Her interview was broadcast and reported internationally, making headline news in International newspapers. It is difficult to determine the impact of Kylie's statements however, health information can be understood as being provided in a broadcast sense;[2] it is conveyed by family members, peers, through educational sources, by health professionals and by sources of information outside of the health system,[3] including influential media sources and celebrities. The "utilization of health services is generally subsequent to the consumption of information" (pg 1454),[3] often regardless of whether it is from potentially unreliable sources.

In view of Kylie Minogue's urge for women to trust their instincts, the key purpose of this paper is to outline some ways of conceptualising trust and then providing some domains on which trusting relationships may be built and sustained. Firstly, we demonstrate the importance of patient trust in both the medical system and their representatives (GPs, nurses etc). Secondly, we provide a broad overview of some social theories of trust that provide a lens through which we can analyse the

development and sources of mistrust in healthcare. Finally, we identify some ways in which healthcare professionals may aim to encourage and facilitate patient trust.

Why does it matter if cancer patients have trust in their physicians and the healthcare system?

There is a escalating wealth of literature on trust in healthcare, reflecting the growing awareness in both research and policy communities.[4] Patient trust in healthcare is being challenged by societal changes that have lead to increased patient autonomy and access to medical information (via potentially unreliable sources).[5] Media reflections, such as Kylie's statement of her personal experience with an alleged misdiagnosis of breast cancer, often fuel lay perceptions of professional fallibility and diagnostic uncertainty, encouraging lay people to question the validity of medical and scientific knowledge and hence, the 'trustworthiness' of both medical practitioners and the system in which their knowledge is based.[6] This often results in individuals taking control of their health, either through the rejection of certain aspects of technology (for example, the growth of alternative and complementary medicine) or through taking matters into their own hands (for example, self care via available information systems).[7]

In a recent research project on how women with breast cancer want their doctors to communicate with them, researchers found that women with breast cancer did not think about their doctors according to whether they 'communicated well', but rather, they were concerned with whether or not they could trust their doctors [8].

Trust between a patient and physician can encourage a patient's willingness to seek care,[9] encourage patients to submit to examination and treatment,[10] enhance the likelihood of return for follow-up care,[11] increase patient receptiveness to health promotion counseling, facilitate health information exchange, enhance the quality of interaction between patients and physicians, facilitate disclosure by patients, enable providers to encourage necessary behavioural changes, and may grant patients more autonomy in decision making about treatments.[12] In an age where we are seeing increased cultural diversity and potential language barriers, trust is crucial for patients struggling to accept diagnoses and to follow complex treatment plans.[5] Patients with trust are more likely to be satisfied with the medical care they received and to have positive clinical outcomes.[11]

What can social theory add to our understanding of patient trust?

Trust can be biologically or culturally institutionalized, but it can also develop as a result of social interaction.[3] Social theory is beneficial in that it can help us to view the social interactions in healthcare that develop, sustain or damage trust. Social theory outlines two forms of trust that are important for understanding (mis)trust in healthcare; institutional[13] and interpersonal.[14] Institutional trust is that which is placed in one or more social systems (e.g. economic, legal, medical, political systems) or institutions (e.g. RCGPs, hospitals, general practices etc). Interpersonal trust is negotiated between individuals; for example, trust between patient and physician. One of the central issues in the sociology of trust is strength and direction of the relationship between interpersonal and institutional trust and of relevance to this journal is the question – how can a practitioner develop interpersonal trust with a patient?

This paper specifically discusses the trust theories of Anthony Giddens and Niklas Luhmann because both have been consistently cited in the majority of literature on trust in healthcare.[12 15-21] In addition, a combination of Giddens' and Luhmann's theories can help to provide insight into the complexity of the relationships that affect patient trust in both the medical system and individual practitioners. While both look at individual and institutional trust, they present conflicting views about how (mis)trust develops. This contradiction provides opportunity for analysis into the complexity of (dis)trusting relationships in healthcare; together, their theories outline a web of relationships that contribute to (mis)trust in both individual physicians and the medical system as a whole.

Luhmann argues that trust in the institution (the medical system) is necessary before an individual (the patient) can have trust in the system's representative (the physician); that trust in the medical system is projected onto the representative or healthcare professional providing diagnosis and treatment. If a patient lacks trust in the medical system, in theory, they would be unlikely to trust the opinion of the physician (the system's representative). However, Luhmann also views society as a variety of social systems that mutually interact with one another.[22] The institutional trust that society places in one social system is highly dependent on their trust in other social systems.[23] Using Luhmann's theory, we may argue that an individual's decision to accept and adhere to a healthcare professional's diagnosis and treatment plan is dependent on their *trust in the professional*, which is a reflection of their *trust in the healthcare system and all other systems that it interacts with/is influenced by* (for instance, the economic system, the political system).

Contradictory to Luhmann, Giddens maintains that interpersonal trust in the systems representative (the physician) is necessary before there is potential for trust in the institution (the medical system). Giddens argues that trust acts as a medium of interaction *between modern society's systems and the representatives of those systems* [24]. The grounds for this interaction are referred to as 'access points'; the meeting ground for what he terms 'faceless' and 'facework' commitments [25]. Facework commitment is dependent on the demeanour of the 'expert' (in health systems, the physician or other health professionals); their level of professionalism, mannerisms, and other aspects of their personality that impact upon our impression and expectation of them. Alternatively, faceless commitment is the perceived legitimacy, technical competence, and the ability of the 'expert system' (the medical system). Giddens (1990) argues that trust is sustained through facework commitments - trust in the physician is required in order to have trust in the medical system. The access point is the meeting ground between the physician and the medical system, whereby the physician is seen to represent the medical system. *"Although everyone is aware that the real repository of trust is in the abstract system, rather than the individuals who in specific contexts 'represent' it, access points carry a reminder that it is the flesh-and-blood people (who are potentially fallible) who are its operators"* Giddens (1990:85). Using Giddens' theory, we may argue that mistrust in the medical system is representative of society's acknowledgment that it is the physicians, specialists, and healthcare professionals who are potentially fallible.

Understanding the complexity of the relationships that affect patient trust is essential to understanding initiatives that can be made to improve trust in healthcare. Both Giddens and Luhmann construct their theories of trust relationships as linear; ignoring the web of interactive relationships that may influence individual trust. In addition, their theories fail to address the role that social factors[5] (such as socioeconomic status, age, class, gender, education) play in an individual's decision to trust. However, when taking both of their theories into consideration, they do provide insight into the multidimensionality of the relationships affecting patient

[5]The theories of Giddens and Luhmann are also beneficial to health research in that the limitations of their theories present areas for future research.

(mis)trust. If trust is understood to be initiated by the physician, the medical system, and/or broader social systems that influence the health system, trust on all levels needs to be addressed when determining how to encourage patient trust. Trust is a multidimensional phenomenon; both trust towards the health system as a whole, and trust towards the healthcare provider in particular, need to be considered when trying to gain a comprehensive understanding of patient (mis)trust.[3]

Encouraging patient trust - what can you do?

As discussed earlier, trust can be understood as a complex web of relationships between individuals and systems. Therefore, initiatives that aim to increase trust levels have to take into account several factors,[3] although many of which are beyond the scope of this paper and are in need of further empirical investigation[6]. Taking this into account, this paper does not claim to offer a universally applicable, all-encompassing understanding of trusting relationships, but rather, it offers empirically and theoretically supported information on methods for potentially encouraging patient trust. Empirical literature around doctor-patient trust has identified certain physician characteristics that have been shown to encourage patient trust: ability[8] (also termed competence[26]), benevolence, integrity, respect, and honesty.[8 27]

Ability or competence

Physicians are agents of social control; they hold medical knowledge that is limits our view of illness to a specific scientific framework that determines whether the body is normal (healthy) or abnormal (sick).[28] While this grants medical professionals an enormous amount of authority and power, they also hold a great deal of responsibility to understand and treat disease while not doing harm.[29] Patient distrust in a physician's diagnosis and treatment has the potential be an additional

[6] For instance, empirical research has shown that trust depends on many personal characteristics; some of which may be argued as immeasurable. These include demographic differences such as the socioeconomic status of both the person trusting, and the person being trusted (Crease 2004), age (Hall et al. 2002), ethnicity (Armstrong et al. 2007), as well as individual experience (emotions; metaphysical or impersonal) (Thiede 2005).

stress to the patient and a further drain of energy; it also has the potential to drive patients to seek other forms of medical information, while missing out on a major source of expert advice (for example, oncologists).[30] Confidence in medical practitioners can be increased by demonstrating technical skill such as answering patient questions without hesitation.[8]

For instance, in a study on how people's trust relates to their involvement in medical decisions, the majority of participants that follow their physician's advice think that it is better to rely on the expert judgment of physicians when dealing with medical problems.[31] If this is the case, healthcare professionals need to maintain their 'expert' advice and unfortunately, reports of professional fallibility such as Kylie Minogue's are potentially influencing patients to question the advice of experts, and in turn, discouraging patients from seeking professional help.

Benevolence

Benevolence is the extent to which the person being trusted is believed to want to do good for the person placing trust.[32] In health care, this may apply to medical professionals profiting from private medical care, pharmaceutical incentives, or research agendas, since trust has been conceptualized as "the optimistic acceptance of a vulnerable situation in which the patient believes the healthcare providers will take care of the patient's interests".[10] It has also been suggested that patients want private benevolence from their physicians such as tenderness in the face of pain, courage in the face of danger, and comfort in the face of death.[29] While not all patients want this form of support, and not all physicians have the time or energy to provide it, the underlying issue is that patients must feel that diagnosis and treatment options are in their best interest, and not serving the individual interests of physicians or medical bureaucracies.

Integrity, respect, and honesty

Along with expertise and benevolence, trust has an interpersonal element that requires patient-physician communication and respect. One study argues that physicians often communicate poorly to cancer patients so that their diagnosis is 'unnecessarily traumatic', and that cancer patients do not often receive the help they need to understand treatment options.[8] Cancer patient participants in the study wanted options in their treatments and they were concerned with whether their physician respected their status as autonomous individuals. They wanted a relationship where they could not only communicate about emotional issues, but

also one where the doctors regarded them as individuals and where the patient and physician shared decision making.[8]

Encouraging patient trust in the medical system

Strong system level trust in medicine facilitates the formation of interpersonal relationships without extensive knowledge about individual personal characteristics. This is extremely important as there has been a significant increase in the complexity of medical care delivery which often requires patients to form new treatment relationships with providers they do not know.[33 34]

Unfortunately, there have been many developments within healthcare systems in the past two decades that have had substantial negative effects on patient trust in the medical system. For example, medical systems in the United States have experienced highly publicized reversals in public trust with accusations of overbilling, withholding information about potential risks of research, and deriving financial benefit from professional knowledge. In the UK, public trust has been eroded through the illegal removal of organs, the Harold Shipman case, and the Bristol doctors. The increase of patient distrust in the medical system is problematic because, if Luhmann is correct, a patient's interpersonal trust in their physician is potentially based on their general feelings towards the medical system.[35]

The cause of the erosion of trust in the medical system is largely due to social developments;[36 37] private healthcare, the growth of pharmaceutical industries, the media sensationalisation of medical errors, as well as many others. As individual practitioners, it is hard to determine what you as an individual may be able to do about this. However, using Giddens theory, we may argue that a patient needs to have trust in the individual physician before they can have trust in the medical system as a whole; that patient trust in you, the practitioner, will develop prior to trust in the medical system. In terms of individual medical practice, trust is morally important [38], and it is the responsibility of practitioners to encourage trusting relationships with their patients, as well as to provide a trustworthy representation of the medical system. It is interesting to note that patient trust in physicians has been found to be approximately ¼ higher on average than patient trust in the medical system. However, once interpersonal trust in healthcare providers is lost, it is rarely rebuilt.[39]

Conclusion

This paper provides insight into the importance of cancer patient trust in both the medical system as a whole, and in healthcare professionals individually. We hope that it has shed light on ways in which healthcare professionals can encourage patient trust and potentially facilitate positive clinical outcomes.

Acknowledgments

We would like to thank Associate Professor John Coveney and Associate Professor Wendy Rogers for their contribution to this work.

References

1. Irwin A, Michael M. Ethno-epistemic assemblages: heterogeneity and relationality in scientific citizenship. *Science, Social Theory and Public Knowledge*. Maidenhead: Open University Press, 2003:111-136.

2. Hardey M. Doctor in the house: the Internet as a source of lay health knowledge and the challenge to expertise. *Sociology of Health and Illness* 1999;21:820-835.

3. Thiede M. Information and access to health care: is there a role for trust. *Social Science and Medicine* 2005;61:1452-1462.

4. Anon. Trust and the sociology of the professions. *European Journal of Public Health* 2006;16(1):3-6.

5. Tarn DM, Meredeth LS, Kagawa-Singer M, Matsumura S, Bito S, Oye RK, et al. Trust in one's physician: the role of ethnic match, autonomy, acculturation, and religiosity among Japanese and Japanese Americans. *Annals of Family Medicine* 2005;3(4).

6. Ward PR. Trust, reflexivity and dependence: a 'social systems theory' analysis in/of medicine. *European Journal of Social Quality* 2006;6(2):143-158.

7. Giddens A. *Modernity and Self Identity*. Cambridge: Polity Press, 1991.

8. Wright EB, Holcombe C, Salmon P. Doctor's communication of trust, care, and respect in breast cancer: qualitative study. *British Medical Journal* 2004;328(7444).

9. Russell S. Treatment-seeking behaviour in urban Sri Lanka: Trusting the state, trusting private providers. *Social Science and Medicine* 2005;61(7):1396-1407.

10. Hall MA, Dugan E, Zheung B, Mishra AK. Trust in Physicians and Medical Institutions: What IS IT, Can It Be Measured, and Does It Matter? . *The Milbank Quarterly* 2001;79(4):613-639.

11. Thom DH, Kravitz RL, Bell RA, Krupat E, Azari R. Patient trust in the physician: relationship to patient requests. *Family Practice* 2002;19(5).

12. Gilson L. Trust and the development of health care as a social institution. *Social Science and Medicine* 2003;56(7):1453-1468.
13. Luhmann N. The Paradox of System Differentiation and the Evolution of Society. In: Alexander J, Colomy P, editors. *Differentiation Theory and Social Change*. New York: Columbia University Press, 1990:409-440.
14. Fukuyama F. *Trust: The Social Virtues and the Creation of Prosperity*. New York, NY: Free Press Paperback, 1995.
15. Andreassen HK, Trondsen MPE, Kummervold PE, Gammon D, Hjortdahl P. Patients Who Use E-Mediated Communication With Their Doctor: New Constructions of Trust in the Patient-Doctor Relationship *Qualitative Health Research* 2006;16(2):238-248.
16. Berg L. Trust in food in the age of mad cow disease: a comparative study of consumers' evaluation of food safety in Belgium, Britain and Norway. *Appetite* 2004;42:21-32.
17. Hardin R. *Trust*. Cambridge: Polity Press, 2006.
18. Lupton D. Consumerism, Reflexivity and the Medical Encounter. *Social Science and Medicine* 1997;45(3):373-381.
19. Lupton D, Tulloch J. 'Risk is Part of Your Life': Risk Epistemologies among a Group of Australians. *Sociology* 2002;36(2):317-334.
20. Mechanic D, Meyer S. Concepts of trust among patients with serious illness. *Social Science and Medicine* 2000;51(5):657-668.
21. Ward P, Coates A. “We shed tears, but there is no one there to wipe them up for us”: narratives of (mis)trust in a materially deprived community. *Health: an Interdisciplinary Journal for the Social Study of Health, Medicine and Illness* 2006;10(3):283-301.
22. Stehr N, Bechmann G. Introduction to the AldineTransaction Edition *Risk: A sociological theory*. London: Transaction Publishers, 2005.
23. Luhmann N. *Trust and Power: Two works by Niklas Luhmann*. Brisbane: John Wiley & Sons, 1979.
24. Giddens A. *Modernity and Self-Identity: Self and Society in the Late Modern Age*. Stanford California: Stanford University Press, 1991.
25. Giddens A. *The Consequences of Modernity*. Stanford California: Stanford University Press, 1990.
26. Cruess SR. Professionalism and Medicine's Social Contract with Society. *Clinical Orthopedics and Related Research* 2006;449:170-176.

27. Dugan E, Trachtenberg F, Hall MA. Development of abbreviated measures to assess patient trust in a physician, a health insurer, and the medical profession. *BMC Health Services Research* 2005;5(64).
28. Foucault M. *The Birth of the Clinic*. London: Tavistock, 1973.
29. Charon R. Narrative Medicine: A Model for Empathy, Reflection, Profession, and Trust. *The Journal of the American Medical Association* 2001;286(15):1897-1902.
30. Kraetschmer N, Sharpe N, Urowitz S, Deber RB. How does trust affect patient preferences for participation in decision-making? *Health Expectations* 2004;7:317-326.
31. Trachtenberg F, Dugan E, Hall MA. How patients' trust relates to their involvement in medical care. *The Journal of Family Practice* 2005;54(4).
32. Schoorman DF, Mayer RC, Davis JH. An Intergrative Model of Organizational Trust: Past, Present, and Future. *Academy of Management Review* 2007;32(2):344-354.
33. Little M, Fearnside M. On Trust. *Online Journal of Ethics* 1997:1-16.
34. Mechanic D, Schlesinger M. The Impact of Managed Care on Patients' Trust in Medical Care and Their Physicians. *Journal of the American Medical Association* 1996;275(21):1693-1693.
35. Hall MA, Camacho F, Dugan E, Balkrishnan R. Trust in the Medical Profession: Conceptual and Measurement Issues. *HSR: Health Services Research* 2002;37(5):1419-1439.
36. Crawford R. Risk Ritual and the Management of Control and Anxiety in Medical Culture. *Health:* 2004;8(4):505-528.
37. Scambler G. *Health and Social Change. A Critical Theory*. Buckingham: Open University Press, 2002.
38. Rodgers WA. It there a moral duty for doctors to trust patients? *Journal of Medical Ethics* 2002;28:77-80.
39. Hupcey JE, Miller J. Community dwelling adults' perception of interpersonal trust vs. trust in health care providers. *Journal of Clinical Nursing* 2006;15:1132-1139.

Trust, social quality and wellbeing: a sociological exegesis

Ward, P. R. and S. B. Meyer (2009). "Trust, social quality and wellbeing: a sociological exegesis." Development and Society **38**(2): 339-363.

Authors:

Paul R Ward

Associate Professor of Public Health Research, Discipline of Public Health, Flinders University, Adelaide

e-mail: paul.ward@flinders.edu.au

Samantha B Meyer

PhD Candidate, Discipline of Public Health, Flinders University, Adelaide

e-mail: meye035@flinders.edu.au

Introduction

The main aim of this paper is to highlight the centrality of 'trust' for the development and maintenance of 'social quality', and ultimately for the health and wellbeing of individuals, communities and societies. Within this paper, when we refer to 'wellbeing', we do not refer to a narrow definition which ties wellbeing to a biomedical definition of health. Instead, we regard 'wellbeing' and 'social quality' as synonyms, and therefore in order to research and promote wellbeing (which is often vaguely conceptualised) within a community or society, we argue for the use of 'social quality', which has been defined as *"the extent to which people are able to participate in the social, economic and cultural life of their communities under conditions which enhance their wellbeing and individual potential"* (Beck, Van der Maesen et al. 2001). Given that we are addressing the social determinants of wellbeing and social quality rather than the biomedical determinants, within this paper, we take a salutogenic approach (Antonovsky 1990) to understanding the importance of trust with regard to wellbeing and social quality. Salutogenesis is a concept that focuses on factors that support human wellbeing rather than on factors that cause disease. While the decision to take a salutogenic approach to explaining wellbeing may be innovative and relatively unexplored in application to social quality, it can be argued that the theory of social quality is in and of itself, a salutogenic approach to understanding health and wellbeing. The current theory of social quality addresses the in-built relationships that exist between the social factors and related systems that impact on wellbeing.

The main aim of this paper is to provide a description and critique of the conceptualisations of trust within sociology, and then to demonstrate the centrality of trust within the Theory of Social Quality (TSQ). As this paper will demonstrate, trust underpins a number of the social systems that play a role in the development and maintenance of social quality; therefore, trust underpins the TSQ. This paper outlines the current TSQ and provides an argument which suggests that before the current theory can be used to frame empirical research in any discipline, the model needs to be reworked. We suggest ways in which current social theories of trust may be situated within the TSQ, in terms of the normative and conditional factors. Evidence will be provided to support the argument that trust plays a more significant role social quality than the current model suggests.

There is a burgeoning wealth of literature on trust in a number of disciplines including sociology (Mollering 2001; Mollering 2001; Ward 2006; Meyer and Ward 2008; Meyer, Ward et al. 2008), public health (Lupton 1996; Rhodes and Strain 2000; Thom 2000; Thom, Kravitz et al. 2002; Gilson 2003; Wright, Holcombe et al. 2004; Tibandebage and Mackintosh 2005; Trachtenberg, Dugan et al. 2005; Taylor-Gooby 2006; Ward and Coates 2006; Whetten, Leserman et al. 2006; Ishikawa and Yano 2008; Meyer and Ward 2008), psychology (Miles and Frewer 2002; Silvester, Patterson et al. 2007), and political science (Giddens 1994; Fukuyama 1995; Alexander 1996; Hardin 2006; Janssen 2006), which reflects the growing awareness in both research and policy of the importance of trust for society's wellbeing. At both an individual and societal level, trust is important for health and wellbeing and is "fundamental to effective interpersonal relationships and community living" (Mechanic & Meyer 2000; p.657). Findings from a substantial body of literature across a broad range of disciplines suggest that trust is an important component for the smooth functioning of society and thus for the development, maintenance and sustainability of the social quality of people's lives (Ward 2006; Ward and Coates 2006; Meyer and Ward 2008; Meyer, Ward et al. 2008).

While there is a great deal of literature which argues the importance of trust for the wellbeing and health of society, there is strong evidence suggesting that modern social developments have led the erosion of both interpersonal trust and institutional trust in a number of democratic countries; interpersonal trust being trust between two or more individuals and institutional trust being an individual's trust in one or more social system(s) (Birungi 1998; Davies 1999; Gilson 2003; Mechanic & Meyer

2000; Russell 2005; Welsh & Pringle 2001). This declining trust has been witnessed in health care along with other institutions (Birungi 1998; Davies 1999; Mechanic and Meyer 2000; Welsh and Pringle 2001; Gilson 2003; Russell 2005) along with the popular media (Williams and Calnan 1996). Declining trust may be linked to broader epistemological challenges about the authenticity of knowledge, the confidence in the power of science and the capacity of experts to deliver to us control over our bodies, '*When the life-world is colonized by medical insecurity, medicalized subjects come to suspect the messenger and the knowledge they bear*' (Crawford 2004).

The aforementioned decline in trust may lead to continuous vigilance and anxiety within society (Crawford 2004), impacting on individual and societal wellbeing and social quality. Indeed, Crawford (2004) provides evidence for the emergence of a '*culture of anxiety',* which has also been termed an '*era of insecurity*' (Bauman 1999), '*ontological insecurity'* (Giddens, 1990) and *'existential anxiety'* (Giddens, 1991), in which 'stasis' or 'escatalogical fatalism' (Beck 1992) becomes the norm and individuals and groups constantly reflect upon their place in society and the role of traditional institutions. In other words, increasing individual and societal reflexivity leads to a constant questioning, although a lack of certainty then leads to both the need for 'trust' and feelings of anxiety (because trust may be broken). Given the increasing risks in modern society on which people begin to question or be reflexive, there may then be a tendency to ignore the risks (or at least, to act is if they are not there) is the search for the 'reduction of complexity' (Luhmann 1982).

Overall, in order to develop and maintain social quality or wellbeing in society, we need to promote and maintain trust, which is not just a matter of focussing on the trustworthiness of individuals, but it is also essential to look at the trustworthiness of social systems and institutions, fitting in with the structure-agency focus of the TSQ which will be outlined below.

Background to the Theory of Social Quality

It is not the purpose of this paper to provide a detailed description and critique of the TSQ, since this has been performed admirably by other papers in this Special Issue of *Development and Society*. However, it is important to provide limited details so that this paper can be read as a stand-alone manuscript, and also to develop and contextualise our argument about the centrality of trust within the TSQ.

In response to the growing social and health inequities within and across Europe, academics working on the development of the TSQ began to develop a theoretically grounded framework which set out a 'values base' on which to then deliver and evaluate policies and services (Beck, Van der Maesen et al. 2001). In the TSQ the term 'values base' includes those 'normative factors' which need to be present within a society in order for wellbeing to be promoted. The four normative factors within the TSQ are solidarity, social justice (or equity), human dignity and equal value. Such normative factors are therefore the underlying bedrock required for health and social policies to begin to improve health and wellbeing.

Within the TSQ, the normative factors then lead to set of constitutional factors, which focus on the resources required within a society in order to make the normative factors possible. This aspect of the TSQ moves it away from abstract political philosophising (i.e. just posing the question "what would an ideal society look like?") to a theory which then begins to reveal the constituent parts or requirement for a society to promote wellbeing. The constitutional factors within the TSQ are human security, social recognition, social responsiveness, and human capacity, each of which aims to address the necessary requirements for the normative factors. For example, in order to promote and maintain solidarity within a society, individual members need to recognise, respect and trust one another, which relates to the constitutional factor of social recognition.

Whilst the constitutional factors lead us into more concrete territory in terms of being able to both develop and evaluate policies aimed at improving wellbeing, the final set of factors (the conditional factors) provide definitions and indicators which are amenable to empirical study. The conditional factors are socio-economic security, social cohesion, social inclusion and social empowerment. It is not our intention to describe and explain each of these factors here, since we discuss each of them separately, later in the paper, when making the argument for the centrality of trust within each of the conditional factors, and hence, across the TSQ. Rather, we now turn our attention to providing a theoretical and political context for the TSQ which will inform our argument regarding the centrality of trust. Additionally, situating the theory in a political context also provides a niche for which we can demonstrate the potential benefits of using a social quality approach within public health research and policy.

The Theory of Social Quality within a theoretical and political context

In Modern times, governments around the World have been tasked with tackling a number of inter-connected issues related to improving the health and wellbeing of their citizens and communities. Some of these issues include maintaining and developing social order, human rights, equity and human capabilities (Sen 1999; Sen 2003); ,the focal areas however, have been health and social policy. Rather than focussing primarily on curing and treating illness and disease, national and international public health and social policy has been re-oriented towards illness prevention and health promotion (Department of Health 2005; Department of Health 2006; Department of Health and Ageing 2009). This shift has been identified as a response to the social and financial pressures placed on society, institutions and the economy by the increasing prevalence of a range of major chronic illnesses and an ageing demographic (National Health Priority Action Council 2006). The policy shift is also a response to the recognition of the importance of the social determinants of health (SDH), which re-orients policy and practice to dealing with the 'causes of the causes' of illness and with developing equitable health and social care systems (Commission on Social Determinants of Health 2008). Research within and across the SDH have tended to explore and analyse particular 'determinants' in isolation, which does not account for the complex and inter-connected nature of the SDH. For example, there are foci of research on social cohesion/capital,(Kim, Subramanian et al. 2006; Poortinga 2006; Poortinga 2006; Siahpush, Borland et al. 2006) social inclusion (or exclusion) (European Foundation for the Improvement of Living and Working Conditions 2003), community engagement/empowerment (Byrt and Dooher 2003), and the deleterious effects of socio-economic status (and the concomitant inequities in access to services and resources) (Power, Graham et al. 2005; Wilkinson and Pickett 2006; Wilkinson and Pickett 2007; Ward 2009), although there have been very few research studies which attempt to assess all of these SDH, due to the lack of a relevant and robust meta-theoretical framework. However, the Theory of Social Quality (TSQ) presents a potentially useful framework for making the connections between the aforementioned foci of research, thus exploring and analysing the complex nature of the SDH, which may have profound implications for both future public health policy and the appropriate provision of health and social care services.

In terms of thinking about the place of trust within the TSQ, we need to situate the TSQ within wider literatures including both public health policy and sociological theory. In terms of public health policy, there are explicit relationships with policies around reducing health inequalities (Department of Health 2005; WHO Task Force

on Research Priorities for Equity in Health 2005), investing in social capital (Health Development Agency 2004) and tackling social inclusion/exclusion (European Foundation for the Improvement of Living and Working Conditions 2003; Social Exclusion Unit 2006). All of these policy literatures highlight the importance of trust. In terms of sociological theory, there are well developed synergies with literatures focussed on relationships between structure-agency (Giddens 1976; Bourdieu 1977; Giddens 1984; Archer 1995; Mouzelis 1995) and systems-lifeworld (Habermas 1997; Scambler 2001; Scambler and Britten 2001; Williams and Popay 2001) and social systems theory (Parsons 1951; Parsons and Norfolk 1971; Luhmann 1982; Luhmann 1995). Again, a social theory of trust is essential in order to 'bridge' the divides between individuals-systems and systems-systems.

It is interesting that the aforementioned shifts in health and social policy to encompass the promotion of health and wellbeing, have occurred during periods of both neoliberalism (or economic rationalism) and a 'crisis of legitimation' (Habermas 1997) of Governments and the State. The meta-agenda of neoliberal Governments with respect to promoting wellbeing, is that 'wellbeing' is ultimately the responsibility of individuals, which allows for a retrenchment of the State in terms of regulation and services aimed at promoting wellbeing. In this way, both the *cause* and *solution* of any health related problems (e.g. obesity, under-age drinking, violence, etc) are located within individuals – it is not the responsibility of the State to legislate or regulate (because using their individualistic argument, they have not caused the problem and therefore have no responsibility for solving it). The notion of 'individual responsibility' has become the central mantra for policy-makers and politicians across the developed world, and one only needs to look at the comments of a former Australian Federal Minster for Health (the Honourable Tony Abbott) who, when asked about the regulation of fast food to children and the responsibility for eating 'unhealthy food', said that the only people responsible for putting food in the mouths of children, were the children and their parents. In making this statement, Tony Abbott was following the neo-liberalist line of decreasing the regulatory powers of the State and increasing the responsibility of citizens.

In terms of promoting wellbeing within and across society, many people would argue for some level of State intervention, although the possibilities and problems associated with this have been vigorous debated within the field of political economy, which originally started with the work of Marx and Engels but was re-invigorated in the 1970s and 1980s (McKinlay 1975; Doyal and Pennell 1979;

Coleman 1982) and still remains important in the 21st Century (Navarro 2002). The central problem for political economists (sometimes called conflict theorists) relates to the social production of illness under capitalism, or what might be termed 'the contradiction between the pursuit of health and the pursuit of wealth'. Political economists argue that since the capitalist system is founded on the production and consumption of material wealth, it cannot also privilege the 'production of health' in an equitable manner. Social theorists in the area of 'risk' have also shown how the increased risks in contemporary society, often as the bi-product of industrialisation, have led to poorer health (Beck 1992; Beck, Giddens et al. 1994; Beck 2005), using examples such as the exposure to chemical waste, environmental pollution and increased stress caused through the increased pressure on workers. There have been counter-arguments to this, showing how the capitalist system needs 'worker bees' and therefore needs to maintain and sustain the health of workers (although not necessarily those groups not involved in the formal workforce).

From the ensuing debate, it seems like a stalemate or impasse has been reached, with both 'sides' of the argument arguing for *either* increased Government control/regulation *or* increased individual responsibility. Whilst this *either/or* thinking is understandable, it may not be productive in the long-term – what may be more productive is *more/less* thinking (or as Giddens called it, the Third Way (Giddens 1998)), which acknowledges the relative importance and interaction of both individuals and the State (or more widely, social systems). Giddens argues that a structure or social system is composed of rules and resources that both govern and are available to human agents. As individuals, we are agents of our own action; we express our agency through acting on, or making, decisions. Giddens acknowledges that both individuals and social systems have the ability to shape their social reality but rather than arguing complete structural or agent determinism, he argues that they interact together to (re)produce society (Giddens 1986). He refers to this as the *duality of structure*; social structures make social action possible while at the same time, social action creates those very social structures. In the case of neo-liberalism, consumers have been granted a great deal of agency as the State has reduced their provision of services and increased reliance upon the individual to manage their own well-being. However, the question remains whether or not individuals wish to acquire the level of agency they have been granted and whether we need more State intervention/regulation to accompany, not necessarily to replace, individual responsibility. Nevertheless, it seems that in order to promote wellbeing, there needs to be attention focussed on both the roles and

responsibilities of individual and Governments (or social systems), and the inter-relationship (or 'communicative action' (Habermas 1997)) between the two.

This backdrop lays the foundation for the current paper in two ways. Firstly, the TSQ explicitly focuses policy attention on the inter-relationships between agency and structure, thereby not locating the cause or solution to problems necessarily within individuals (like a neoliberalist agenda would). Secondly, in response to the first point, the issue of trust takes centre stage, since some social theorists engaged in the agency-structure debate (e.g. Giddens and Luhmann) regard trust the an essential ingredient for the smooth-functioning of society, which then facilitates individual and societal wellbeing. Taking this point further, we may even say that one of the normative factors (i.e. the bedrock of social quality) ought to be 'trust' – that a society with 'social quality' and 'wellbeing' would be built on 'trust' in addition to solidarity, equal value, human dignity and social justice. Alternatively, we may argue that trust is actually implicit in all of the original normative factors, thereby not requiring a shift in the current TSQ. Given the centrality of 'trust' within this paper, we now move to a description and critique of some of the major conceptualisations of trust within social theory, to allow the reader to get a deeper understanding of our central argument – that trust is so central to 'social quality' that it should not only appear (and therefore have indicators) within one of the conditional factors where it is currently situated (social cohesion), but across all of the conditional factors, thereby meaning that multiple indicators of trust are used, to reflect the multi-dimensional nature of trust (Brown 2008; Meyer, Ward et al. 2008).

Conceptualisations of Trust

The concept of 'trust' has been extensively researched and theorised within the behavioural and social sciences (in addition to the humanities), and is a key domain within public policy discourses on social capital, social inclusion/exclusion and the TSQ. Within the field of public health, trust is often used as a marker of high/low social capital, although the *measurement* of trust is usually based on localised forms of inter-personal trust (e.g. trust in neighbours or local community groups). It is not intended to provide an in-depth review of the concept of trust here, since this has been done admirably elsewhere (Gambetta 1988; Luhmann 1989; Giddens 1990; Simmel 1990; Giddens 1991; Giddens 1994; Misztal 1996; Mollering 2001; Gilson 2003; Gilson, Palmer et al. 2005; Goudge and Gilson 2005). Instead, this paper represents an attempt to widen the scope of thinking within public health to encompass the different possibilities of meaning around trust and to recognise the importance of literature within the sociology of trust. In particular, the paper

attempts to explore the utility of Luhmann's 'social systems theory' (Luhmann 1995), Habermas' ideas about 'colonization of the lifeworld' (Habermas 1997), Giddens' ideas about facework/faceless commitments (i.e. interpersonal and systems based trust) and their meeting at 'access points' (e.g. the GP surgery)(Giddens 1990; Giddens 1991), and more generalised epistemological concerns about decreasing confidence in (and acceptance of) experts, expertise and the power of science (Wynne 1992; Williams and Popay 1994; Wynne 1996; Fuller 2000; Williams 2000; Williams and Popay 2001).

Scholarly research on trust is often presented in academic articles without any formal definition, assuming that readers all share a common understanding. However, given the vast range of definitions that have been used within literature on the sociology and psychology of trust, the possibility of a shared understanding remains problematic. Therefore, we employ the initial definition by Sabel (Sabel 1993: 1133), "the mutual confidence that no party will exploit another's vulnerability" (Sabel 1993), within this paper. However, since this definition implies that trust is merely a product or process of inter-personal relationships between individuals, we also qualify the definition by reference to the idea that to trust others, is to "accept the risks associated with the type and depth of the interdependence inherent in a given relationship" (Shepard and Sherman 1998: 423).. By a 'relationship', we do not limit trust to being an inter-personal or intersubjective outcome. Rather, we view relationships as 'systems of communication' (Luhmann 1995) between individuals and social systems, and therefore trust is the process and outcome of relationships between individuals-individuals, individuals-social systems, and social systems-social systems. Therefore, in line with TSQ and our earlier argument, trust may be seen as the process and outcome of the structure-agency linkage, which lends itself to 'more-less' thinking, rather than 'either-or' thinking. The 'either-or' thinking aims to locate trust in 'either' individuals 'or' social systems, whereas the 'more-less' thinking seeks to explore the nature and extent of trust in both the individuals and social systems. These issues are explained in more detail when we provide a critique of Niklas Luhmann's theory of trust (Luhmann 1989; Luhmann 1995; Luhmann 2000; Luhmann 2005).

Trust has been conceptualised as representing a defining feature of late modernity and the demarcation between what has been called 'pre-modern' and 'modern' society (Giddens 1990; Giddens 1991; Giddens 1994). Luhmann stated that "one should expect trust to be increasingly in demand as a means of enduring the

complexities of the future which technology will generate" (Luhmann 1979: 16). This fits within the context of the 'Risk Society' (Beck 1992), whereby the increasing perception of risk moves 'trust' even more centre-stage, since where there is risk, there is a need for trust (Luhmann 2005). In this way, trust becomes of key academic concern to social scientists who are essentially interested in both understanding the features of social life and also social change. Whilst Beck (Beck 1992; Beck 2005) is slightly at odds with Giddens, since he (contrary to Giddens) believes that the key defining feature of modernity is 'risk', there is an obvious linkage between the two conceptualisations through the notion of reflexivity. Both writers stress the importance of individual and societal reflexivity, and see this as the lens through which people both become aware of, and act upon risk/trust (Beck, Giddens et al. 1994). In this way, the issue of trust/mistrust is not so much about the proliferation of risks, but that individuals and groups have developed heightened levels of reflexivity on which they can act (i.e. decide whether or not to trust a particular person, institution or system of knowledge).

Tust is seen as involving 'leaps of faith' (Simmel 1990, p.179) and being 'quasi religious' (Giddens 1990, p.26-7). Giddens stated that *"trust is only required where there is ignorance"* (1991: 89) and Luhmann (1989) defined trust in terms of 'reducing complexity'. This paper specially deals with the theories of Giddens and Luhmann because both have been consistently cited in the majority of theoretically informed literature on trust (Lupton 1997; Mechanic and Meyer 2000; Gilson 2003; Bordum 2004; Salvatore and Sassatelli 2004; Bordum 2005; Brownlie and Howson 2005; Pearson, Crane et al. 2005; Andreassen, Trondsen et al. 2006; Ward and Coates 2006). While both Giddens and Luhmann have made considerable contributions to trust literature across several disciplines, this paper deals specifically with aspects of their work that are relevant to the application of trust theories within the social quality framework.

Prior to investigating their theories, it must be acknowledged that Giddens and Luhmann specifically recognise two types of trust: institutional (also termed abstract of faceless) and interpersonal (facework) (Giddens 1991; Giddens 1994; Luhmann 1990). Both Giddens and Luhmann view interpersonal trust as a learned personal trust that is negotiated between individuals (an individual's decision to trust someone or not). Institutional trust is the trust that is placed in the system or institution; for Luhmann trust in one social system is highly dependent on our trust in another social system (Luhmann 1979). It is important to acknowledge the

distinction between institutional and interpersonal trust because *"Trust occurs in a framework of interaction which is influenced by both personality and social systems, and cannot be exclusively associated with either*" (Luhmann 1979: p6).

Giddens argues that an individual's trust rests on a vague and partial understanding as some of our decisions are based on past experiences that are believed to be reliable for present decisions (Giddens 1990). In order for an individual to have 'trust', he argues that their decision must combine good reason (past experience) with something further that satisfies their 'partial understanding' (Giddens 1991). He refers to this partial understanding as a 'leap of faith' or 'ontological security' (Giddens 1991); a commitment to something other than just cognitive understanding (Brownlie & Howson 2005). Therefore, trust only exists when there is ignorance as there is no need to trust in a situation where one has complete knowledge (Giddens 1991). In other words, Giddens argues that we only place trust in situations of uncertainty. If past experience or good reason satisfies our understanding, we have no need to trust. For instance, one does not 'trust' that the sun will rise tomorrow. Based on our past experience of it rising everyday and our good reason that it is highly unlikely that it will not rise, we may have confidence, but not trust.

Luhmann looks at trust in terms of its function in society (Luhmann 1988). An individual's decision to place trust or distrust in something or someone reduces the complexity in their social world because their decision functions as a way to pursue their actions rationally (Luhmann 1979). For instance, if an individual makes a conscious decision to trust in their government, they can pursue their decision to vote based on rational choice. As a citizen who is constantly reliant upon decisions regarding systems or institutions that are run by the government, placing trust in their government reduces the complexity of subsequent decisions; if they trust their government, they are likely to trust in the systems, institutions, and policies controlled by government. Luhmann argues that systems (social systems[7]) need to reduce complexity in order to function properly and with increasing complexity, the need for assurances through trusting relationships grows accordingly (Borch 2005). Put simply with regards to the above example, as new policies and regulations are set by the government that are often beyond the understanding of the lay person

[7] Luhmann, a social system's theorist, refers to what he terms social systems. Examples of social systems are the economic system, the political system, the medical system etcetera.

(complexity is increased), the need for trusting relationships grows. The increase in complexity leads to increased need for trust. Brown (2008) argues that trust is best understood in a multidimensional sense; trust in one social system is highly dependent on our trust in another social system(Luhmann 1979).

Another aspect of trust that is central to understanding its role in social quality is modernity which is a concept that both Giddens and Luhmann address. Giddens discusses 'modern social forces' (such as the expansion of electronic communication, technology etcetera) and how they have played a central role in the organization of social relationships (Giddens 1991). He argues that this expansion has created a demand for 'expert systems' – systems of expert knowledge which now penetrate virtually all aspects of social life. For instance, an expert system may be the medical system which provides us with expert information regarding the medicines we should take, the food we should eat, or the treatments we should undergo.

Although these 'expert systems' provide information which the average lay person often has little knowledge of, Giddens also suggests that the lay populace does recognise that expert systems cannot adequately anticipate the future. For example, the current state of global 'economic crises' provides evidence that although there are many 'expert' financial advisors with a great deal of knowledge that is not likely understood by the lay populace, they were unable to adequately anticipate the future and as a result, a large proportion of people who placed trust in these systems of expert knowledge. It is for this reason that Giddens argues that (mis)trust stems from interpersonal relationships with the people who represent the expert systems. He uses the term 'access point' to identify the meeting ground in which the individual is seen to represent the social system (Giddens 1990). For example, an access point may be a physicians' surgery where the physician is seen to represent the medical system, or a bank where the bank teller is seen to represent the financial or economic system. Giddens (1990:85) argues that *"Although everyone is aware that the real repository of trust is in the abstract system, rather than the individuals who in specific contexts 'represent' it, access points carry a reminder that it is the flesh-and-blood people (who are potentially fallible) who are its operators"*. Put simply, Giddens argues that institutional trust presupposes and is determined by interpersonal trust (Meyer et al. 2008). For instance, Giddens would argue that in order to have trust in the economic system, we must first have interpersonal trust in our financial advisor (who represents the system).

While Luhmann does not acknowledge the idea of 'expert systems', he does discuss the use of social systems and personal systems as a means of reducing complexity (Meyer et al. 2008). It is at this point that he goes on to discuss the difference between trust and confidence (this distinction is discussed later in the paper); however, more pertinent to this paper is Luhmann's discussion of the notion of time as a relation to trust. He outlines the problematic relationships between trust and time stating that *"To show trust is to anticipate the future. It is to behave as though the future were certain"* (Luhmann 1979:10) which is similar to Giddens discussion of how we rely on systems of expert knowledge but we recognise that they cannot adequately predict the future and therefore trust is necessary to fill the partial understanding. While this, as argued above, has led Giddens to state that trust operates on an individual level (trust is built and sustained in interpersonal relationships), Luhmann takes a different approach and argues that trust is seen as both an outcome of, and response to increasing complexity in society. The complexity and uncertainty inherent in society means that we cannot adequately anticipate the future; trust allows us to behave as though we can. Individuals have come to depend on learning and confirming trusting relationships between the boundaries of internal *systems* and the external environment (Luhmann 1988). For instance, Luhmann would argue that an individual can learn to trust a financial advisor because they are part of a trusted external system – the economic system - regardless of if they have never met the advisor and does not know anything about them terms of demeanour or personality. Alternatively, they may have learned to trust between the boundaries of systems and believe that both the economic system (and systems that influence the economic system – for example, the political system) and the financial advisor will operate in their best interest. Contradictory to Giddens who would argue that trust must be invested in the financial advisor before an individual can have trust in the economic system, Luhmann would argue that trust must occur in the social systems before one can have trust in the representatives of the social system.

As previously outlined, in order to fully understand trust, it is essential to address the role that both interpersonal and institutional trust play in society. Giddens' and Luhmann's theories contradict each other as they argue that (mis)trust operates on different levels of society; Giddens maintains that interpersonal trust is necessary before there is potential for institutional trust, while Luhmann argues the reverse, that trust in the system is necessary before an individual can have trust in the

system's representative. Both construct their theories in a linear manner; ignoring the web of interactive relationships that may influence individual trust (Meyer, Ward et al. 2008; Meyer and Ward 2008). Upon our critique and analysis, trusting relationships should not be understood as operating in a linear, unidirectional manner; they can be understood as a complex 'web of interaction' (Meyer et al. 2008). Rather than arguing that trust originates at an individual OR systems based level, we argue that it may originate at either. Our model also takes on a second critique of current social theories of trust. It has been argued that Giddens fails to pay significant attention to the role that gender, age, social class, ethnicity and nationality play in the conceptualisation of trust (Lupton 1997; Lupton and Tulloch 2002). A similar critique may be made of Luhmann who also fails to acknowledge the role that social factors may play in an individual's willingness to trust. Social factors are also included as a part of our web of interactive relationships. In addition, the category of 'experience' must be acknowledges to play a role in an individual's trust as Giddens includes it as a major component of an individual's 'decision' to trust. In summary, an individual's trust originates in both interpersonal and institutional relationships but also stems from personal experience and a variety of social factors.

As a contribution to current social theories of trust, we have thoroughly critiqued and analysed the work of Giddens and Luhmann to produce a more comprehensive social theory of trust that may be used to underpin the theory of social quality. We have taken a salutogenic approach to understanding the social systems that impact health and wellbeing and we have determined a number of areas where potentially mistrusting relationships may occur (on both a systems and interpersonal level). These mistrusting relationships may result in 'conflict' and subsequently lead to inequalities in health. Mistrust may lead to continuous vigilance and anxiety within society and therefore has the potential to impact social quality and wellbeing.

The interplay between trust and social quality

We have already outlined the centrality of trust for developing and maintaining social quality (or wellbeing) in society, through our discussion around the normative factors underpinning the TSQ. However, we now turn to an examination of the conditional factors, since it is here that the indicators of social quality have been developed and implemented (van der Maesen, Walker et al. 2005). Therefore, from a policy perspective, we need to focus on the importance of trust across the conditional factors and then lay the path for developing relevant indicators to measure the

different dimensions of trust (e.g. interpersonal trust, trust in institutions, trust in particular community groups etc).

This section of the paper addresses each of the four domains and explores how trust fits within each domain and identifies areas where trust may be understood to underpin each quadrant. Given the lack of empirical research in this area, we propose arguments for the importance of trust within and across the quadrants, although these all require empirical research.

The current theory of social quality is based around four main domains which comprise 50 sub-domains and 94 indicators (van der Maesen and Walker 2005). The four conditional domains are socioeconomic security, social cohesion, social inclusion, and social empowerment. Within these conditional factors, trust is located within social cohesion, and is therefore not seen as integral to the development of social empowerment, social inclusion or socio-economic security. Luhmann argues that trust is the 'glue' that holds society together (Luhmann 1988) and after an extensive critique and analysis of theoretical and empirical trust research (Meyer, Ward et al 2008), we put forward that trust underlies each of the four domains outlined in the current model of social quality.

Socio-economic security is concerned with the extent to which people or groups have access to, utilisation of and successful outcomes related to a variety of resources over time. These resources may be related to, among other things, finance, housing, healthcare, employment and education. This domain has great historical credence in public health policy and practice in terms of the importance of such factors in shaping inequalities in health and inequities in health care. Internationally, huge efforts have been put into both public health policy (Department of Health 1998; Department of Health 2005; WHO Task Force on Research Priorities for Equity in Health 2005; Department of Health 2009; Department of Health and Ageing 2009) and research (Commission on Social Determinants of Health 2005; Wilkinson and Pickett 2006; Commission on Social Determinants of Health 2007; Wilkinson and Pickett 2007; Commission on Social Determinants of Health 2008) around understanding the causes and mechanisms of inequalities in health, particularly in relation to education, housing and unemployment.

In the field of medical sociology, much of the empirical literature on 'trust' has been about the ways in which trust impacts on access to and utilization of services, and

therefore the concept of trust sits firmly within this quadrant. This literature highlights the importance of both inter-personal and systems-based trust within the quadrant of socio-economic security. The issue for health outcomes is less about the 'reality' or absolute nature of the socio-economic circumstances of individuals or groups, but more about the relative or 'felt' nature. There is a great deal of literature in public health showing that negative health outcomes are attributed to feelings of insecurity and relative deprivation, rather than their absolute levels – when people feel insecure (e.g. likelihood of redundancies) it affects their health in a negative way (Wilkinson 1997; Wilkinson & Pickett 2006; Wilkinson & Pickett 2007). Therefore, the major links between trust and socio-economic security (for the purposes of this paper) relate to the relationship between trust and feelings of socio-economic security.

Within a different sphere of social life, one may think about the importance of trust in socio-economic security within the labour market. For example, an employee (in, say, a car manufacturing plant) needs to place trust in their line manager or supervisor in terms of the advice they are being given about performance and career and the ways in which their supervisor advocates for them. In addition, the employee needs to trust in a more abstract notion of their 'employer' (the car manufacturer) in terms of making enough profit to keep them in a job. Furthermore, the employee needs to trust in an even more abstract notion of an 'economic system' and 'political system', so that necessary legislation and regulations are in place to keep the economic system viable for the car manufacturer to keep trading. Luhmann would argue that the employee should first invest their trust in the economic and political systems (since all else rests on these) and only then, would they invest trust in the car manufacturer and then their supervisor. However, Giddens would say that trust would first be negotiated and gained with the supervisor, and then with the increasingly abstract systems. Irrespective of theorist, we can see that trust is centrally important to a sense of socio-economic security.

"Social cohesion is the extent to which social relations, based on identities, values and norms, are shared" (van der Maesen and Walker 2005:12). As social cohesion is the quadrant that actually includes trust, we do not need to proffer a sustained argument about the importance of trust however, in many ways, this domain relates to the concept of social capital, which is now commonplace in public health policy (Health Development Agency, 2004) and research (Kawachi, Kennedy et al. 1997; Lochner, Kawachi et al. 2003; Skrabski, Kopp et al. 2003; Subramanian, Lochner et

al. 2003; Kim, Subramanian et al. 2006), although its roots are in sociological theory (Durkheim 1951; Bourdieu 1984; Berkman, Glass et al. 2000; Carpiano 2006; Poortinga 2006; Poortinga 2006). Even though social capital is a contested concept within sociology and social policy, all conceptualizations involve 'trust' which adds weight to its centrality within this quadrant.

Social inclusion, is in many ways, similar to social cohesion, although the diffwerence is that social inclusion is related to the extent to which people and groups have access to and are integrated into the different institutions and social relations of 'everyday life'. This domain relates to the extent to which people and groups 'feel part of' or included in society, at an everyday level, a large part of which must involve trust. This domain attempts to integrate processes at the level of systems (i.e. institutions and social systems) and the 'lifeworld'. In so doing, it extends Parsons' notions of social systems by seeing their interconnectedness with individual lifeworlds. In this way, the domain of social inclusion fits neatly with theories developed by Giddens and Luhmann in addition to Habermas (Habermas 1997; Habermas 2001; Scambler 2001; Scambler 2002), in addition to both public health policy and research (Scambler & Britten, 2001; Williams & Popay, 2001).

In terms of the relationship between trust and social inclusion, our view is that people and groups cannot feel and be completely 'included' unless there are trusting relations, which need to be reciprocated by both parties in the relationship. These trusting relations may be in terms of more micro-level processes – an individual who has recently moved into a new city gaining access to and being included in a local community group (the members of the community group need to develop trust in the new person and vice versa). These may also play out in macro-level processes – the way in which policy (and by that, policy makers and implementers) excludes certain groups of society because they are not to be 'trusted'. An example of this is socio-economically disadvantaged parents in Australia – all parents receive a 'baby bonus' when a child is born which is a lump-sum cash payment to help to pay for items associated with the new baby. However, for people on low incomes, they now receive the 'baby bonus' as fortnightly payments rather than the lump-sum, because there was a concern (or lack of trust) as to whether or not the baby bonus was being used 'appropriately'. This lack of trust by policy makers has served to reinforce stereotypical views of low income (including lone and young) parents and excluded them from a policy initiative which pays a lump-sum to other parents.

Social empowerment relates to the extent to which the personal capabilities of individual people are enhanced by social relations. This domain takes concepts of social inclusion and cohesion, and explores the enabling factors which empower people to act as social agents. This domain builds on, and empirically develops, notions of reflexivity, outlined by Beck (Beck, 1992; Beck, 2005) and Giddens (Giddens, 1990; Giddens, 1991; Giddens, 1994). Our view is that one of the enabling factors is trust, which obviously requires other enabling factors such as reflexivity and social and economic resources. In terms of the resources required to make the decision to trust or not to trust, the notion of reflexivity is centrally important. Luhmann distinguishes between trust and confidence, whereby confidence is an unreflexive act (not considering otherwise) whereas trust requires an active decision to trust (in terms of choosing from a horizon of alternatives or possibilities). The issue here is therefore the relationship between reflexivity, trust and empowerment. Some research has shown that in situations where individuals exhibit generalised levels of distrust, they also feel completely disempowered – they feel cut-off from and let down by various sources of power and therefore that they do not have a 'voice' to enable situations to change for the better (Ward & Coates 2006). Obviously more research needs to be undertaken to explore the links between reflexivity, trust and empowerment.

Conclusion

The current theory of social quality presents a multidimensional and multilevel approach to the advancement of practice and policy by realizing the link that exists between individuals and systems (Ward 2006). However, this paper has argued that given that *trust* is the 'glue' that permits functioning between interpersonal and systemic levels of society, it must play a larger role in the current social quality framework before it can form the basis for empirical research.

The current theory of social quality has not yet had widespread testing empirically. It can been assumed that the lack of empirical application is due to a number of factors: 1. The volatility of the current model as it can be argued that some of the factors outlined may be categorised in more than one domain; 2. It would be exceptionally difficult to control for the number of variables that exist in the current model; and 3. The coordination necessary to research the number of variables would be extraordinary as various areas of expertise would be needed before this holistic model could be put into place. The long term aim of developing and implementing a practical current theory of social quality is one that will take a great

deal of ambition and coordination across a multidisciplinary team of researchers and policy makers. This paper is our contribution to the further development of the current theory of social quality.

References

Alexander, J. (1996). "Critical Reflections on Reflexive Modernization." Theory, Culture and Society **13**(4): 133-138.

Andreassen, H. K., M. P. E. Trondsen, et al. (2006). "Patients Who Use E-Mediated Communication With Their Doctor: New Constructions of Trust in the Patient-Doctor Relationship." Qualitative Health Research **16**(2): 238-248.

Antonovsky, A. (1990). Salutogenesis: Studying health vs. Studying disease. Congress for Clinical Psychology and Psychotherapy. Berlin.

Archer, M. (1995). Realist Social Theory: The Morphogenetic Approach. Cambridge, Cambridge University Press.

Bauman, Z. (1999). In Search of Politics. Stanford, CA, Stanford University Press.

Beck, U. (1992). Risk Society. Towards a new modernity. London, Sage.

Beck, U. (2005). World Risk Society. Cambridge, Polity Press.

Beck, U., A. Giddens, et al. (1994). Reflexive Modernization. Politics, Tradition and Aesthetics in the Modern Social Order. Cambridge, Polity Press.

Beck, W., L. Van der Maesen, et al., Eds. (2001). Social Quality: A Vision for Europe. The Hague, Kluwer Law International.

Berkman, L. F., T. Glass, et al. (2000). "From social integration to health: Durkheim in the new millennium." Social Science & Medicine **51**(6): 843-57.

Birungi, H. (1998). "Injections and self-help: risk and trust in Ugandan health care." Social Science and Medicine **47**(10): 1455-1462.

Borch, C. (2005). "Systemic Power: Luhmann, Foucault, and Analytics of Power." Acta Sociologica **48**(2): 155-166.

Bordum, A. (2004). Trust as a Critical Concept. Working Draft. Copenhagen, Center of Market Economics Copenhagen Business School.

Bordum, A. (2005). Trust and Leadership on The Value Laden Concept of Trust. Working Draft. Copenhagen, Center of Market Economic Copenhagen Business School.

Bourdieu, P. (1977). Outline of a Theory of Practice. Cambridge, Cambridge University Press.

Bourdieu, P. (1984). Distinction: A Social Critique of the Judgement of Taste. London, Routledge.

Brown, P. R. (2008). "Trusting in the New NHS: instrumental versus communicative action." Sociology of Health & Illness **30**(3).

Brownlie, J. and A. Howson (2005). "'Leaps of Faith' and MMR: An empirical Study of Trust." Sociology **39**(2): 221-239.

Byrt, R. and J. Dooher (2003). Empowerment and participation: definitions, meanings and models. Empowerment and Participation: Power, Influence and Control in Contemporary Health Care. J. Dooher and R. Byrt. Salisbury, UK, Quay Books.

Carpiano, R. M. (2006). "Toward a neighborhood resource-based theory of social capital for health: Can Bourdieu and sociology help?" Social Science and Medicine **62**(1): 165-175.

Coleman, W. (1982). Death is a Social Disease: Public Health and Political Economy in Early Indistrial France. Madison, University of Wisconsin Press.

Commission on Social Determinants of Health (2005). Action on the Social Determinants of Health: Learning from Previous Experiences. Geneva, World Health Organisation.

Commission on Social Determinants of Health (2007). Achieving health equity: from root causes to fair outcomes. Geneva, World Health Organisation.

Commission on Social Determinants of Health (2008). Closing the gap in a generation: Health equity through action on the social determinants of health. Final report of the CSDH. Geneva, World Health Organisation.

Crawford, R. (2004). "Risk Ritual and the Management of Control and Anxiety in Medical Culture." Health: **8**(4): 505-528.

Davies, H. (1999). "Falling public trust in health services: implications for accountability." **4**(4): 193-194.

Department of Health (1998). Independent Inquiry into Inequalities in Health Report. London, Stationary Office.

Department of Health (2005). Tackling Health Inequalities: Status Report on the Programme for Action. London, Department of Health.

Department of Health (2006). Investing in Primary Care. London, Department of Health.

Department of Health (2009). Tackling Health Inequalities: 10 Years On. A review of developments in tackling health inequalities in England over the last 10 years. London, Department of Health.

Department of Health and Ageing (2009). Australian Better Health Initiative. Canberra, Department of Health and Ageing.

Doyal, L. and I. Pennell (1979). The Political Economy of Health. London, Pluto Press.

Durkheim, E. (1951). Suicide: A Study in Sociology. Glencoe, Free Press.

European Foundation for the Improvement of Living and Working Conditions (2003). Social Inclusion: Local Partnerships with Civil Society (Foundation Paper Number 4). Luxemburg, Office for Official Publications of the European Communities.

Fukuyama, F. (1995). Trust: The Social Virtues and the Creation of Prosperity. New York, Free Press Paperback.

Fuller, S. (2000). The Governance of Science. Buckingham, Open University Press.

Gambetta, D. (1988). Trust: Making and Breaking Co-operative Relations. Oxford, Basil Blackwell.

Giddens, A. (1976). New Rules of Sociological Method. London, Hutchinson.

Giddens, A. (1984). The Constitution of Society. Cambridge, Polity Press.

Giddens, A. (1986). The Constitution of Society: Outline of the Theory of Structuration. California, University of California Press.

Giddens, A. (1990). The Consequences of Modernity. Cambridge, Polity Press.

Giddens, A. (1991). Modernity and Self Identity. Cambridge, Polity Press.

Giddens, A. (1994). Risk, trust, reflexivity. Reflexive Modernization: Politics, Tradition, and Aesthetics is the Modern Social Order. U. Beck, A. Giddens and S. Lash. Cambridge, Polity Press**:** 194-197.

Giddens, A. (1994). Risk, Trust, Reflexivity. Reflexive Modernization. U. Beck, A. Giddens and S. Lash. Cambridge, Polity Press.

Giddens, A. (1998). The Third Way: Renewal of Social Democracy. Cambridge, Polity Press.

Gilson, L. (2003). "Trust and the development of health care as a social institution." Social Science and Medicine **56**(7): 1453-1468.

Gilson, L., N. Palmer, et al. (2005). "Trust and health worker performance: exploring a conceptual framework using South African evidence." Social Science and Medicine **61**(7): 1418-1429.

Goudge, J. and L. Gilson (2005). "How can trust be investigated? Drawing lessons from past experience." Social Science and Medicine **61**(7): 1439-1451.

Habermas, J. (1997). The Theory of Communicative Action. Volume 1. Reason and Rationalization of Society. Cambridge, Polity Press.

Habermas, J. (2001). On the Pragmatics of Social Interaction. Preliminary Studies in the Theory of Communicative Action. Cambridge, Polity Press.

Hardin, R. (2006). Trust. Cambridge, Polity Press.

Health Development Agency (2004). Social Capital for Health: Issues of Definition, Measurement and Links to Health. London, Health Development Agency.

Ishikawa, H. and E. Yano (2008). "Patient health literacy and participation in the health-care process." Health Expectations **11**: 113-122.

Janssen, M. A. (2006). "Evolution of cooperation in a one-shot Prisoner's Dilemma based on recognition of trustworthy and untrustworthy agents." Journal of Economic Behavior & Organization **65**(3-4): 458-471.

Kawachi, I., B. P. Kennedy, et al. (1997). "Social capital, income inequality, and mortality." American Journal of Public Health **87**(9): 1491-1498.

Kim, D., S. V. Subramanian, et al. (2006). "Bonding versus bridging social capital and their associations with self rated health: a multilevel analysis of 40 US communities." Journal of Epidemiology & Community Health **60**(2): 116-122.

Lochner, K. A., I. Kawachi, et al. (2003). "Social capital and neighborhood mortality rates in Chicago." Social Science and Medicine **56**(8): 1797-1805.

Luhmann, N. (1979). Trust and Power: Two works by Niklas Luhmann. Brisbane, John Wiley and Sons.

Luhmann, N. (1982). The differentiation of society. New York, Columbia University Press.

Luhmann, N. (1988). Trust: Making and Breaking Cooperative Relations. Familiarity, Confidence, Trust: Problems and Alternatives. D. Gambetta. New York, Basil Blackwell**:** 94-107.

Luhmann, N. (1989). Trust and Power. New York, Wiley.

Luhmann, N. (1995). Social systems. Stanford, Calif., Stanford University Press.

Luhmann, N. (2000). Familiarity, Confidence, Trust: Probelms and Alternatives. Trust: Making and Breaking Cooperative Relations. D. Gambetta. Oxford, Blackwell.

Luhmann, N. (2005). Risk : a sociological theory. New Brunswick, N.J., Transaction Publishers.

Lupton, D. (1996). You life in their hands: trust in the medical encounter. Health and the Sociology of Emotions. J. V. Gave and J. Gabe. Oxford, Blackwell Publishers**:** 157-172.

Lupton, D. (1997). "Consumerism, Reflexivity and the Medical Encounter." Social Science and Medicine **45**(3): 373-381.

Lupton, D. and J. Tulloch (2002). "'Risk is Part of Your Life': Risk Epistemologies among a Group of Australians." Sociology **36**(2): 317-334.

McKinlay, J. B. (1975). A Case for Refocusing Upstream: the Political Economy of Illness. Applying Behavioral Science to Cardiovascular Risk. A. J. Enelow and J. B. Henderson. Washington, DC, American Heart Association.

Mechanic, D. and S. Meyer (2000). "Concepts of trust among patients with serious illness." Social Science and Medicine **51**(5): 657-668.

Meyer, S., P. Ward, et al. (2008). Operationalising trust in food, food systems and dietary recommendations: what can social theory add? Thinking in Synergy, Adelaide, SA.

Meyer, S., P. Ward, et al. (2008). "Trust in the health system: an analysis and extension of the social theories of Giddens and Luhmann." Health Sociology Review **17**(2): 177-186.

Meyer, S. and P. R. Ward (2008). "Do your patients trust you?: a sociological understanding of the implications of patient mistrust in healthcare professionals. ." Australasian Medical Journal **1**: 1-12.

Meyer, S., P. R. Ward, et al. (2008). "Trust in the health system: an analysis and extension of the social theories of Giddens and Luhmann. ." Health Sociology Review **17**: 177-186.

Meyer, S. B. and P. R. Ward (2008). "Do your patients trust you?: a sociological understanding of the implications of patient mistrust in healthcare professionals." Australasian Medical Journal **1**.

Miles, S. and L. J. Frewer (2002). "Trust, Perceived Risk, and Attitudes Toward Food Technologies." Journal of Applied Social Psychology **32**(11): 2423-2433.

Misztal, B. (1996). Trust in Modern Societies. Cambridge, Polity Press.

Mollering, G. (2001). "The nature of trust: From Georg Simmel to a theory of expectation, interpretation and suspension." Sociology **35**: 403-420.

Mollering, G. (2001). "Piotr Sztompka: Trust. A Sociological Theory." Organizational Studies **22**.

Mouzelis, N. (1995). Sociological Theory: What Went Wrong? London, Routledge.

National Health Priority Action Council (2006). National chronic disease strategy. Canberra, Department of Health and Ageing.

Navarro, V., Ed. (2002). The Political Economy of Social Inequalities. Consequences for Health and Quality of Life. Amityville, NY, Baywood Publishing Company.

Parsons, T. (1951). The social system. Glencoe, Ill., Free Press.

Parsons, T. and C. Norfolk (1971). The system of modern societies. Englewood Cliffs, N.J., Prentice-Hall.

Pearson, S., S. Crane, et al. (2005). Persistent and Dynamic Trust: Analysis of Trust Properties and Related Impact of Trusted Platforms. Trust Management. L. P. Hewlett-Packard Development Company. Bristol, Springer Berlin**:** 355-363.

Poortinga, W. (2006). "Social capital: An individual or collective resource for health?" Social Science and Medicine **62**(2): 292-302.

Poortinga, W. (2006). "Social relations or social capital? Individual and community health effects of bonding social capital." Social Science and Medicine.

Power, C., H. Graham, et al. (2005). "The contribution of childhood and adult socioeconomic position to adult obesity and smoking behaviour: an international comparison.[see comment]." International Journal of Epidemiology **34**(2): 335-44.

Rhodes, R. and J. J. Strain (2000). "Trust and Transforming Medical Institutions." Cambridge Quarterly of Healthcare Ethics **9**: 205-217.

Russell, S. (2005). "Treatment-seeking behaviour in urban Sri Lanka: Trusting the state, trusting private providers." Social Science and Medicine **61**(7): 1396-1407.

Sabel, C. F. (1993). "Studied Trust - Building New Forms of Cooperation in a Volatile Economy." Human Relations **46**(9): 1133-1170.

Salvatore, A. and R. Sassatelli (2004). Trust and Food: A theoretical discussion. Consumer Trust in Food - A European Study of the Social and Institutional Conditions for the Production of Trust. Bologna, University of Bologna.

Scambler, G. (2001). Habermas, Critical Theory and Health. London, Routledge.

Scambler, G. (2002). Health and Social Change. A Critical Theory. Buckingham, Open University Press.

Scambler, G. and N. Britten (2001). System, lifeworld and doctor-patient interaction: issues of trust in a changing world. Habermas, Critical Theory and Health. G. Scambler. London, Routledge.

Sen, A. (1999). Development as Freedom. Oxford, Oxford University Press.

Sen, A. (2003). Inequality Reexamined. Oxford, Oxford University Press.

Shepard, B. H. and D. M. Sherman (1998). "The Grammars of Trust and General Implications." Academy of Management Review **23**: 422-438.

Siahpush, M., R. Borland, et al. (2006). "The association of smoking with perception of income inequality, relative material well-being, and social capital." Social Science and Medicine **63**: 2801-2812.

Silvester, J., F. Patterson, et al. (2007). "Trust: Psychological and Behavioral Predictors of Perceived Physician Empathy." Journal of Applied Psychology **92**(2): 519-527.

Simmel, G. (1990). The Philosophy of Money. London, Routledge.

Skrabski, A., M. Kopp, et al. (2003). "Social capital in a changing society: cross sectional associations with middle aged female and male mortality rates." **57**(2): 114-119.

Social Exclusion Unit (2006). Reaching Out: An Action Plan on Social Exclusion. London, UK Cabinet Office.

Subramanian, S. V., K. A. Lochner, et al. (2003). "Neighborhood differences in social capital: a compositional artifact or a contextual construct?" Health & Place **9**(1): 33-44.

Taylor-Gooby, P. (2006). "Trust, Risk and Health Care Reform." Health, Risk & Society **8**(2): 97-103.

Thom, D. H. (2000). "Training physicians to increase patient trust." Journal of Evaluation in Clinical Practice **6**(3): 245-253.

Thom, D. H., R. L. Kravitz, et al. (2002). "Patient trust in the physician: relationship to patient requests." Family Practice **19**(5): 476-484.

Tibandebage, P. and M. Mackintosh (2005). "The market shaping of charges, trust and abuse: health care transactions in Tanzania " Social Science and Medicine **61**(7): 1385-1395.

Trachtenberg, F., E. Dugan, et al. (2005). "How patients' trust relates to their involvement in medical care." The Journal of Family Practice **54**(4).

van der Maesen, L., A. Walker, et al. (2005). European Network Indicators of Social Quality. "Social Quality:The Final Report. Amsterdam, European Foundation on Social Quality.

van der Maesen, L. J. G. and A. Walker (2005). "Indicators of Social Quality: Outcomes of the European Scientific Network." European Journal of Social Quality **5**(1/2): 8-24.

Ward, P. and A. Coates (2006). ""“We shed tears, but there is no one there to wipe them up for us”: narratives of (mis)trust in a materially deprived community." Health: an Interdisciplinary Journal for the Social Study of Health, Medicine and Illness **10**(3): 283-301.

Ward, P. R. (2006). "Trust, reflexivity and dependence: a 'social systems theory' analysis in/of medicine." European Journal of Social Quality **6**(2): 143-158.

Ward, P. R. (2009). "The relevance of equity in healthcare for primary care: creating and sustaining a ‘fair go, for a fair innings’." Quality in Primary Care **17**: 49-54.

Ward, P. R. and A. Coates (2006). ""We shed tears but there is no one there to wipe them up for us": narratives of (mis)trust in a materially deprived community." Health: An interdisciplinary journal for the social study of health, illness and medicine **10**: 283-302.

Welsh, T. and M. Pringle (2001). "Social capital. Trusts need to recreate trust." British Medical Journal **323**(7306): 177-178.

Whetten, K., J. Leserman, et al. (2006). "Exploring Lack of Trust in Care Providers and the Government as a Barrier to Health Service Use." American Journal of Public Health **96**(4): 716.

WHO Task Force on Research Priorities for Equity in Health (2005). "Priorities for research to take forward the health equity policy agenda." Bulletin of the World Health Orgainsation **83**: 948-953.

Wilkinson, R. G. and K. E. Pickett (2006). "Income inequality and population health: a review and explanation of the evidence." Social Science & Medicine **62**(7): 1768-84.

Wilkinson, R. G. and K. E. Pickett (2007). "The problems of relative deprivation: why some societies do better than others." Social Science & Medicine **65**(9): 1965-78.

Williams, G. (2000). "Knowledgeable narratives." Anthropology & Medicine **7**: 135-140.

Williams, G. and J. Popay (1994). Lay knowledge and the privilege of experience. Challenging Medicine. J. Gabe. London, Routledge.

Williams, G. and J. Popay (2001). Lay health knowledge and the concept of the lifeworld. Habermas, Critical Theory and Health. G. Scambler. London, Routledge.

Williams, S. J. and M. Calnan (1996). Modern Medicine. Lay Perspectives and Experiences. London, UCL Press.

Wright, E. B., C. Holcombe, et al. (2004). "Doctor's communication of trust, care, and respect in breast cancer: qualitative study." British Medical Journal **328**(7444).

Wynne, B. (1992). "Misunderstood misunderstanding: social identities and the public uptake of science." Public Understanding of Science **1**: 281-304.

Wynne, B. (1996). May the sheep safely graze? A reflexive view of the expert-lay knowledge divide. Risk, Environment and Modernity: Towards a New Ecology. S. Lash, B. Szerszynski and B. Wynne. London, Sage.

What are the important issues around food safety and nutrition? Findings from a media analysis and qualitative study of consumer trust.

Henderson, J., P. R. Ward, J. Coveney and S. B. Meyer (2010). "What are the important issues around food safety and nutrition? Findings from a media analysis and qualitative study of consumer trust." Australasian Medical Journal **1**(2): 164-169.

Julie Henderson, Paul R. Ward, John Coveney, Samantha B. Meyer

Abstract

Background

The increased focus on the prevention of illness and the promotion of health and wellbeing creates new and exciting opportunities for health care professionals to engage with their patients. One such area of engagement is around food safety and nutrition, given the central importance of these to maintenance of health. In order to enhance meaningful engagement with patients, health care professionals need to be aware of the messages that their patients are currently receiving from the media about food safety and nutrition, and also the general awareness and perceptions of these issues within the lay populace. This paper presents an analysis of media stories and interviews with consumers.

Method

Media stories were analysed for five Australian newspapers from January 2006 to June 30th 2008 for all articles relating to food and trust except letters to the editor. All articles were then subject to discourse analysis. In addition, interviews were undertaken with 47 participants.

Results

The most prevalent media stories about regulatory strategies for addressing childhood obesity (16.7%, N=120 articles). Stories about the contamination of food, either by bacteria or foreign objects was the second most prevalent theme (14.9%, N=107), followed by stories about the regulation of GM food (13.9%, N=100 articles). The qualitative findings highlight the high levels of trust in the Australian food supply and food safety regulation, but low levels of trust in media reporting around food safety and diet. For some people, the media reporting lead to confusion around food safety and diet issues.

Discussion

Confusion about, and rejection of, media messages about healthy eating have the potential to contribute to the development of chronic illness through a failure to adopt lifestyle changes. Furthermore, it may inhibit the seeking of appropriate information by people with chronic illness. Given a growing emphasis upon primary care and health literacy, health care professionals need to be aware of the messages that their patients receive.

Key Words

Primary health, food safety, nutrition, media, qualitative research

---

Background

Australia has moved towards a more extensive delivery of primary health care, through a process of re-orienting health policy and practice towards the prevention, rather than solely on the treatment and on-going management of illness and disease.[1] A move towards primary health care has been supported by changes to the Medicare Benefits Schemes through the Enhanced Primary Care Scheme to cover health checks, management plans for chronically ill patients and case conferencing with allied health workers,[2-5] with additional changes effective from 1 May 2010 to support longer consultations.[6] The Rudd government since election in November 2007 has signaled its commitment to primary care through the establishment of taskforces to develop a National Primary Health Care Strategy and National Preventative Health Strategy.[1] As part of this, a discussion paper, *Towards a National Primary Health Care Strategy,* was published in 2008 calling for patient-centered care supported by improved health literacy about, and self-management of chronic illness and a stronger focus on wellness, prevention and early detection, to reduce the incidence of chronic illness.[1,2]

The main purpose of this paper is to situate the roles of health care professional within a broader framework of food and nutrition. Given the importance of nutrition within the prevention of illness and promotion of health and wellbeing, health care professionals have a large role to play in advising patients about food safety and diet and referring some patients for specialized consultations. However, in order to advise and provide appropriate consultation on food safety and diet, health care professionals need to understand the current messages provided to consumers (via the media) and also consumers' general awareness and perception of issues around diet and food safety. It is to these points that the paper now turns.

GPs are an important component of primary health services.[7] Coote argues that the government initiatives in the last 20 years in the form of funding and regulatory changes, have moved general practitioners from autonomous practice to becoming part of the broader health care system.[4] With changes in care delivery and movement towards primary care there is evidence of increasing expectations of GPs by patients. Pettigrew et al found that older patients want GPs to provide timely referral to specialists and other health practitioners, and to have current knowledge of medical developments and awareness of patient history[8] while Lawn et al. found that patients with chronic illness wanted more holistic and patient-centered care.[9]

Diet is an important component of the management and prevention of chronic illness given the central role played by food choice and diet in the prevention and development of many major chronic diseases such as cardiovascular disease, type 2 diabetes, and some cancers.[10] A number of recent studies have demonstrated that consumers have many misconceptions about what constitutes health risk and healthy eating.[11-15] Food experts believe that the public under-assesses the risk associated with some microbiological hazards and over-assesses the risk associated with other hazards such as genetically modified organisms and bovine spongiform encephalopathy.[11] Consumers confront increasing amounts of information on food every day and in response, simplify food choice through coping strategies such as avoiding and favouring foods; vigilance; actively seeking and using food safety information; moderation and variety; common sense based upon previous personal experience or the experiences of significant others; or lack of concern.[12] Scientific evidence is often rejected leading to behaviour that has the potential to damage health.[13] In practice, food choice is not only driven by health concerns but also by routine; personal food preference; ethics; food cost; convenience and access; and by previous experience.[14-15]

The media is a significant source of information about food.[12] Kitzinger et al. argue that the media does not however, provide an adequate avenue for information about food risks as reporting depends upon the perceived newsworthiness of stories. Food stories attract attention when there are decisive scientific statements, disasters, fresh human interest stories, official reactions and conflict over the level of danger experienced. Risk by its nature is often poorly defined, can be ignored and involves projected outcomes ensuring that health risks are poorly reported by the media.[16] Despite the inadequacies of media reporting of food issues and lack of trust in the media, there is evidence that the media impacts upon the attitudes and

behaviors of readers. Frewer et al found a relationship between the volume of media reporting and people's perception of risk[17], Bauer, in a longitudinal studies of attitude towards biotechnologies, found a convergence of the values of readers of elite press with media presentations over time[18] and more recently McMahon et al. found that acceptance of and trust in 'scientific' messages in the media depends upon regular exposure to these messages.[19]

While trust in media reporting of food issues is limited, medical professionals are considered a reliable source of information about food risks and healthy eating.[20-22] GPs have a role to play in the provision of accurate information about diet and its impact upon health. GPs need to be aware of information received from other sources, such as the media, which may undermine health literacy and contribute to unhealthy behaviours. This paper explores two aspects of media reporting: the food issues reported in the Australian media and audience reception of the food information they receive through the media. This data will be explored in light of moves towards primary care and an increasing role for GPs in preventing chronic illness

Method

The data for this paper comes from two sources: firstly from five Australian newspapers *The Australian, The Age, The Advertiser, The Australian Financial Review* and *The Sydney Morning Herald.* A media search was conducted via Factiva, a database which provides full-text access to Australian newspapers, using the search term "food" for the period from Jan 2006 to June 30th 2008 for all articles relating to food and trust except letters to the editor. The inclusion criteria for the study were: articles addressing level of confidence in the quality and safety of food, in the food system, food producers and retailers or in food governance. The search elicited a total of 717 articles in all. The articles were subject to content analysis resulting in identification of 8 themes, pertaining to childhood obesity, food contamination, GM food, food labelling, organic food, risky foods, food regulation and other articles. The articles were then mapped via theme across the timeframe to enable the identification of peaks and troughs in reporting in relation to key events.

A second source of data is 44 semi-structured interviews with 47 participants (3 interviews were conducted with couples). Participants were aged between 18 and 65 years and chosen on the basis of being the primary shopper for the household as

earlier research suggests that these people are more likely to consider the safety and quality of their food.[23] The study used purposive sampling techniques to attract participants who are information rich.[24] Information richness is identified by Popay *et al*. as a marker of quality in qualitative research.[25] The sample was structured by location, age and gender with participants sought from high SES, low SES and rural locations. Ethics approval for this project was gained through the Flinders University Social and Behavioural Ethics Committee.

The interviews were of approximately one hour duration and addressed issues of food choice; information about food; food safety; governance of food; trust in institutions and level of trust in food. The data for this paper is primarily drawn from discussion of media reporting of food risk. The interviews were audio-taped and transcribed verbatim. Data were analysed using techniques from grounded theory, which seeks to provide a depiction of reality through allowing the theory to emerge from the data.[26] The data were initially coded using open codes which identify concepts and their properties and later subject to axial coding which makes conceptual links between the concepts.[26]

Results

Media analysis

Table 1 shows the number and percentage of articles published for each theme between January 2006 and June 2008. The most prevalent theme relates to regulatory strategies for addressing childhood obesity (16.7%, N=120 articles). Two strategies were covered in the media: the regulation of fast food advertising to children and the banning of junk food from school canteens. Concerns about the contamination of food, either by bacteria or foreign objects was the second most prevalent theme (14.9%, N=107). The reporting of food contamination centres on the breakdown of infection control and regulatory mechanisms. The regulation of GM food was another prevalent theme in the media at this time (13.9%, N=100 articles) reflecting debate about the lifting of a moratorium on the growth of GM canola by New South Wales and Victoria and ongoing debate in South and Western Australia. Other themes identified in this study include debate about the responsibilities for and adequacy of food regulation (12.7%), risky foods (12.4%), food labeling (10.2%) and organic food (9.1%).

Figure 1 maps the reporting of the three most prevalent issues across the 30 months that data was collected. Regulation of childhood obesity was evident

throughout the 30 months studied with peaks in reporting in July 2006 (N=12) and April 2008 (N=9) concurrent with the release of advertising industry codes for practice which address the regulation of fast food advertising to children. Food contamination was also reported throughout the 30 month period however, there were two peaks in reporting in April 2007 (N=23) and June 2008 (N=17) in response to high profile cases in Victoria and South Australia involving the death of residents in aged care facilities from food poisoning. Reporting of GM foods in contrast centres on one peak in reporting in November 2007 (N=22) when the moratorium on GM crops was lifted resulting in widespread debate in the media about the benefits and liabilities of GM foods.

Interviews

The participants in this study generally displayed a high level of trust in the food supply. One younger woman exemplifies this belief stating that "[o]verall I assume that it's fairly safe all the time. Yeah I probably I would always assume that it's safe" (L8). Other participants quantify their level of trust. An older woman observes "I would say I'm 90 percent happy with trusting what I've purchased" (J25). For others trust is taken for granted. A rural male who is responsible for the family shopping states "I'd be very confident yes. I wouldn't be buying food and feeling like 'oh, I'm not sure about this' sort of thing" (J42).

When questioned as to why they perceive Australian food to be safe, participants cite the rigour of Australian food standards; general cleanliness of the environment and a lack of personal bad experience and exposure to major food scares. A male from a low SES community states for example, that:

…unless you've got a reason, not to trust, like you've had an experience or you've, you know, something has happened, then, I think then perhaps you wouldn't trust them, but I always grew up that you trust things until there's a reason not to (L4).

Participants were also asked to comment upon their level of trust in food information received through the media. While participants identified some trusted media sources such as the ABC television, radio stations and websites and broadsheet newspapers, they generally expressed little trust in food reporting in the media. This perspective is exemplified by a younger woman from the eastern suburbs who states that "I tend to trust the likes of the ABC and some of the established papers like *The Australian*, whereas the other ones that are more commercial…" (J18) A

common response to the information received is reflection upon conflicting messages about the healthiness of food. This view is exemplified by an older woman who states:

You can't believe a thing you read in the paper because you know everyday there's different story. You know one day they'll tell you that something is bad for you and the next day it's good for you (J17)

This leads to confusion as to what foods to eat. A male from the eastern suburbs notes for example, that "with these people saying 'this is bad, that is good' … it's just a confusing time" (J26). Others feel overwhelmed by the volume of information received. A mother of young children notes that " I don't trust myself as much as I'd like to because of all this extra information that - I think it sometimes inhibits our ability to do some things like parent and prepare food and all sorts of things" (J30).

Furthermore, media reporting often conflicts with commonsense understandings of what constitutes healthy eating. A rural participant states for example: "10 years ago they were saying eggs were terrible for you and today they're starting to say again they're one of the best foods for you."(J42) Confusion has the potential to undermine treatment regimes as people with chronic illness seek appropriate information to maintain health. This point is exemplified by the following quote from a participant with a history of cancer who states:

…there's so many things about you know, food causing cancer. One of the things I have a problem with is, is the way they test things so there might be something in, at one stage it was cabbage caused cancer (J9).

Respondents adopt a number of different responses to confusion about food and healthy eating. Some reject media information. A younger male respondent says for example that :

They're telling us all this stuff – bad stuff – about food but you go back a few years before this hype and we were still eating it …back then, they were happy with all the stuff they ate. They didn't have all this crap about high cholesterol or high sugar intake and everything. (J26).

Others adopt a wait and see approach. An older participant who had a history of cancer states that media reporting says: "you shouldn't have this for cancer and you shouldn't have that. Well, okay. Let's wait and see what happens down the track."

(J20) For others the solution is found in commonsense with participants opting to "buy what we believe is healthy" (J1) and using their own judgment as to what constitutes a healthy diet. This view is exemplified by a mother of young children who states that: "I figure as long as my kids have fruit and that, and don't have hardly any of that stuff [food high in fat], it's all good." (J38)

Discussion

An analysis of media reporting of articles related to trust in food demonstrate that the issues most likely to attract media attention are those pertaining to emerging public health issues such as childhood obesity (16.7%) or reporting of food contamination incidents, particularly in aged care facilities (14.9%). GM food also received media attention at this time due to changes in legislation surrounding GM crops (13.9%). Only 89 articles (12.4%) addressed healthy eating. This contrasts with previous findings where obesity, particularly in children accounted for 47% of articles and food contamination accounted for 16%.[27] The dominance of these particular stories may reflect their newsworthiness. For Conrad[28] "newsworthiness is a negotiated phenomenon."(p.141). Sources manage media content to present themselves in the best light while journalists manage their sources to get the information they want.[29] As a consequence, the information presented may not be an accurate reflection of the degree of risk posed to the reader by food safety and nutrition issues.

Despite a media focus upon more sensational food stories, and contrary to de Boer et al, when questioned about media reporting of food, participants most commonly addressed media reporting of healthy eating rather than food safety concerns suggesting that this is the issue of concern for the participants.[11] Participants in this study express trust in the food system but distrust of media reporting of food issues. In general, they describe being confused by the volume of information received and by contradictory messages about the healthiness of food. Furthermore, media reporting often contradicts commonsense understandings of what is healthy. In response, participants adopt strategies such as rejecting health messages, deferring judgment or relying upon their own judgment as to what constitutes a healthy diet, reflecting findings from similar studies.[12, 14-15]

This data suggests that the participants are interested in, and are seeking dietary information. The literature suggests that GPs are not only considered a reliable source of information about the impact of diet and nutrition on chronic illness.[20-22] but

that patients also have increasing expectations of the role of GPs in relation to management of chronic illness.[8-9] As such, there is a need for GPs to be aware of the food messages that patients receive through the media and the behavioural impact these messages have upon them.

Conclusion

Confusion about, and rejection of, media messages about healthy eating potentially contribute to the development of chronic illness through a failure to adopt lifestyle changes. Furthermore, confusion may inhibit the seeking of appropriate information by people with chronic illness. Given a growing emphasis upon primary care and health literacy, GPs need to be aware of the messages that their patients receive about food and nutrition.

References

Kidd, M.: What impact will the Australian government's proposed national health care reforms have on Australian general practice? *MJA* 2009, 191(2): 55-57.

Commonwealth of Australia: Towards a National Primary Health Care Strategy: A discussion paper from the Australian government, Commonwealth of Australia, Canberra; 2008.

National Preventative Health Taskforce (2008) *Australia: the healthiest country by 2020. A discussion paper*. Canberra: Commonwealth of Australia.

Coote, W.: General practice reforms 1989-2009. *MJA* 2009, 191(2): 58-61.

Medicare Australia: Enhanced Primary Care (EPC) Services; 2006 http://www.medicareaustralia.gov.au/provider/patients/files/section_08_enhanced_primary_care_services_medicare_reference_guide.pdf

Department of Health and Ageing: The Changes to Medicare Primary Care Items: A fact sheet for General Practitioners; 2009 http://www.health.gov.au/internet/main/publishing.nsf/Content/mbsprimarycare-changes-to-medicare-primary-care-items-for-gps

The Australian General Practice Network: Primary Health Care Position Statement 2009, The Australian General Practice Network: Manuka ACT; 2009.

Pettigrew, S., Mizerski, K. & Donovan, R.: Older Australian's expectations of their interactions with their GPs. *Australian Journal of Primary Health, 11*(3), 38-44.

Lawn, S., Battersby, M., Lindner, H., Matthews, R., Morris, S., Wells, L., Litt, J. & Reed, R.: What skills do primary health care professionals need to provide self-management support? Seeking consumer perspectives. *Australian Journal of Primary Health* 2009, 15: 37-44

Australian Institute of Health and Welfare: *Australia's Health 2008.* Canberra: Australian Institute of Health and Welfare; 2008.

De Boer, M., M. McCarthy, et al.: Public understanding of food risk issues and food risk messages on the island of Ireland: The views of food safety experts. *Journal of Food Safety* 2005, 25(4): 241-265.

Jarvela, K., J. Makela, et al. Consumers' everyday food choice strategies in Finland. *International Journal of Consumer Studies* 2006; 30(4): 309-317.

Enticott, G. Risking the rural: nature, morality and the consumption of unpasteurised milk. *Journal of Rural Studies* 2003, 19: 411-424.

Green, J. M., A. K. Draper, et al. Short cuts to safety: risk and "rules of thumb" in accounts of food choice. *Health, Risk & Society* 2003, 5(1): 33-52.

Macintyre, S., J. Reilly, et al.: Food choice, food scares and health: The role of the media. In *The Nation's Diet: The Social Science of Food Choice*. Edited by A. Murcott. New York, Addison Wesley Longman; 1998; 228-249.

Kitzinger, J. and J. Reilly The Rise and Fall of Risk Reporting. *European Journal of Communication* 1997, 12(3): 319-350.

Frewer, L., S. Miles, et al.: The media and genetically modified foods: Evidence in support of social amplification of risk. *Risk Analysis* 2002, 22(4): 701-711.

Bauer, M. Distinguishing red and green biotechnology: cultivation effects of the elite press. *International Journal of Public Opinion* 2005, 17(1): 63-89.

McMahon, A., Tappsell, L., Williams, P., Motion, J. & Jones. S: Food advertisements containing ‘scientific’ and ‘lay’ person’ keywords: responses from a sample of female Australian consumers. *Nutrition & Dietetics* 2010 (*in press*), 67(1).

Coulson, N. S.: Source of food safety information: whom do adolescents trust?" *Appetite* 2002, 38(3): 199-200.

Kornelis, M., J. de Jonge, et al.: Consumer Selection of Food-Safety Information Sources. *Risk Analysis* 2007, 27(2): 327-335

Lang, J. T. and W. K. Hallman: Who Does the Public Trust? The Case of Genetically Modified Food in the United States. *Risk Analysis* 2005, 25(5): 1241-1252.

Coveney, J: *Food, Morals and Meaning: The Pleasure and Anxiety of Eating*. London: Routledge; 2006.

Patton, M: *Qualitative Research and Evaluation methods*. Sage: Thousand Oaks: California; 2002.

Popay J.: Rationale and standards for the systematic review of qualitative literature in health services research. *Qual Health Res*. 1998, 8:341-51.

Strauss, A. & Corbin, J: *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory*. Thousand Oaks: Sage; 1998.

Lupton, D.: "A grim health future": food risks in the Sydney press. *Health, Risk & Society* 2004, 6(2): 188-200.

Conrad, P.: Genetic optimism: Framing Genes and mental illness in the news. *Culture, Medicine and Psychiatry* 2001, 25: 225-247.

Anderson, A.: In search of the Holy Grail: Media discourse and the new human genetics. New *Genetics and Society* 2002, 21(3): 327-337.

ACKNOWLEDGEMENTS

The authors would like to thank Trish Clark for support with referencing, and formatting and Louise Holmberg who conducted interviews with younger participants. We would also like to thank Associate Professor Anne Taylor for advice and constructive comments on the study which this paper is based. The data is drawn from and ARC funded project on Food & Trust.

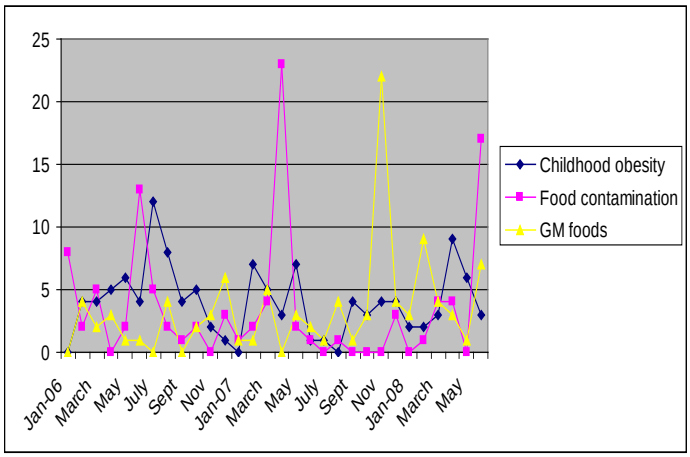
Figures and Tables

Table 1: Major themes from Australian print media reporting of food and trust 2006-June 2008

Topic		N	%
Childhood obesity		120	16.7
	Banning junk food ads	100	13.9
	Banning junk food from school canteens	20	2.8
Food contamination		107	14.9
	Food poisoning	86	12.0
	Foreign objects in food	21	2.9
GM food		100	13.9
Regulation		91	12.7
	Food hygiene inspections	30	4.2
	Export/trade/quarantine	31	4.3
	Standards for food producers	16	2.2
	Calls for taxation of fast foods	9	1.3
	Obesity checks in schools	3	0.4
	Duplication of regulation	3	0.4
Risky foods		89	12.4
	Trans fats	31	4.3
	Fish/seafood	22	3.1
	Chicken/poultry	6	0.8
	Meat	6	0.8
	Other (food additives, cheese, eggs, sweeteners, breakfast cereal)	23	3.2
Food Labelling		73	10.2
Organic food		65	9.1

Other articles		72	10.0
	Food safety information	8	1.1
	Rising food prices	16	2.2
	Critiques of role of big business	6	0.8
	Functional foods/ food additives	13	1.8
	Others	29	4.0
Total		717	100

Figure 1: Media reporting of the three most prominent food issues January 2006-June 2008.



\

What should primary health care practitioners know about factors influencing young people's food choices?

Holmberg, L., J. Coveney, J. Henderson and S. B. Meyer (2010). "What should primary health care practitioners know about factors influencing young people's food choices?" Australasian Medical Journal **1**(4): 259-266.

Abstract

Background

To identify factors that determine the nature and extent of young consumers trust in food; sources of information which influence young consumer food choices; and how trust impacts on young people's food choices.

Method

In-depth qualitative research interviews were conducted with young women and men, who are the primary food purchasers in their household (n=8)

Results

Food choices of young adults were generally determined by cost and convenience. The overall perception was that Australian food regulation was effective and therefore, food safety need not be questioned. Health including long term health, although considered, was not central in food choice behaviour. Trustworthy nutrition information sources included family and friends. While food labels were used they were considered scientific and complex. The media and the food industry were deemed to be untrustworthy information sources.

Conclusion

Cost and convenience were major determinants of food choice in this group of young people who generally lacked a reflexive capacity with regards to food safety and health. A failure to prioritise health raises questions regarding the engagement of young people in public health initiatives, and should be of interest to primary health care practitioners.

These data suggest that general practitioners should be aware that cost and convenience may take priority over health issues for young people. Further research is required to confirm the findings of this small study, with future studies aiming to include young people from varying socio-demographic backgrounds in order to gain a more comprehensive view of young people's trust in food.

Key Words
Food choice, Trust, Young people, Qualitative research

Background

The importance of understanding food choice is of significance to public health given the central role played by food preferences and diet in the prevention and development of many major chronic diseases, such as cardiovascular disease, type 2 diabetes, and some cancers.1 Food choice is, however, a complex phenomenon influenced by biological, cultural, economic and psycho-social factors. One factor which affects food choice is trust in food sources.2,3 Trust is a complex and often vague phenomenon, around which there are many definitions and theories. There is no commonly shared understanding of what trust means and the concept of trust has yet to be defined universally within and across disciplines.4-10 Indeed Knight11 et al states that “trust is a concept that is generally understood by the public, yet academics in several disciplines have devoted much effort to defining it” (p.795). However, despite the lack of agreement regarding its definition, across public health literature there is some consistency which suggests that trust is the optimistic acceptance of a vulnerable situation which is based on positive expectations of the intentions of the trusted individual or institution.4, 7, 12 There have been many well publicised food scandals in recent years that have highlighted the fragility of food trust13. In some countries, a lack of trust in the integrity of food has left consumers susceptible to poor dietary choices and forms of misinformation14. It is for this reason that trust and its impact on consumer relationships with food is of increasing importance in today’s society as conditions of uncertainly around food production, distribution, regulation and security continue to place individuals in a state of vulnerability. Indeed, it is suggested that there is increasing anxiety surrounding food consumption in modern culture due to the process of globalization and the introduction of new food production technologies which have made many foods increasingly unidentifiable and unfamiliar.15, 16 Further to this, consumers appear to know less about food than ever before as they are faced with competing discourses on food, nutrition, and the environment, and as the food and health sectors become increasingly entwined.17, 18

Trust impacts three important areas that may be of concern to primary health care practitioners; food choice, trust in expert advice (such as advice from doctors), and food regulation.19

Food choice: Trust affects food purchases, which ultimately dictate food intake and nutritional status.19 It has been argued that consumer distrust in food may hamper healthy food choices and discourage consumers from following the dietary recommendations of expert advice (for example healthcare professionals or public health initiatives) regarding dietary intake.20 This was evident during the Bovine Spongiform Encephalopathy (BSE) crisis in the UK when a decline in consumer consumption of beef led to decreased intake of vital nutrients due to issues of distrust. One study found that nutrients such as protein, zinc, fat and energy were compromised in those who did not eat beef during this time.21

The impact of trust on food choice is also evident in the organic food movement. Lockie et al17 in a study of consumption of organic food found that the primary motivation for choosing organic products was the desire to consume foods that were free of additives and chemicals and which were unprocessed. Participants expressed distrust of what was felt to be industrialised food production techniques, but were also distrusting of the certification of organic food leading many consumers to re-embed trust in personal relationships with growers.22

Expert advice: One of the features of everyday life is constant reminders of ever present health inherent, for example, in food choice.23 It is for this reason that consumers rely on systems of expert knowledge to limit the risks involved in decisions – the foods to eat, the medicines to take, etc. In other words, consumers rely on experts (medical practitioners as well as food regulators) to provide them with the necessary information to limit the risks in their decisions. While it has been argued that individuals must rely on experts as well as systems of expert knowledge, there is ample evidence of an erosion of trust in both individuals and institutions.23,24,25 A lack of trust is evident in Western Europe due to growing unease about food safety caused by incidents such as BSE/vCJD26 In an Australian context, a small qualitative study conducted in Adelaide with participants aged 18-65 years, found a lack of trust in expert messengers, such as the National Heart Foundation and Anti Cancer Foundation, arising from the endorsement of food for companies who can afford to have their food tested.19 Whilst we are dependent on expert information, lay trust in food is being challenged as media representations of food scares fuel public concerns regarding food regulation, technology, and production, encouraging lay individuals to question the validity of expert information. This is likely to be detrimental to public health messages regarding food choice as a

lack of trust in experts may influence consumers to seek out more questionable sources of (mis)information, like the internet.27

Food regulation: Australians have been relatively protected from major world food scandals, however some have been subjected to other highly publicized food safety issues, such as contamination of orange juice and biscuits and E-coli in processed meat.28 The extent to which food safety scares impact on the level of trust in Australian consumers is unknown, although there is evidence to suggest that public concerns about food exist.27 In two recent Australian surveys, the food fears most often documented were those surrounding the use of pesticides, food additives and preservatives.27, 29 Social demographics including age, is known to play an important role in determining individual food choice.2, 3, 30-32 Food choices are dynamic and evolve across the lifetime as people develop, change over time and are shaped by social environments.3 Influences on food decisions also differ throughout the lifecycle.33-35 Young adults, for example, are establishing themselves as new consumers and are likely to be exploring new food tastes and experiences.33 Moreover, as a distinct subculture, young adults are recipients of targeted marketing of commodities, including foods and beverages.35

For many studies conducted on food and trust, a generic consumer is assumed, one who is neither gender, nor age, or class specific. As such, the results often reflect the views of a population which is predominately middle-aged, Caucasian and female. The impact of trust on the food choices of young adults is relatively unknown. Given the importance of a foundation of healthy eating habits in early adulthood, it is important to understand the role of trust in the food choices of young adults.

This paper reports on an exploratory study into food and trust from the perspectives of young Australians. The aim of the study was to examine the notion of trust and its impact on the food purchases of young people. The following three questions were used as guidance.1. What factors determine the nature and extent of young consumers trust in food? 2. What sources of information influence trust and young consumer food choices? 3. How does (dis)trust impact on young people’s food choices?

These questions were explored through a qualitative approach which captures the meanings that people attach to experiences, enabling exploration of under-researched areas such as trust and its impact on young consumer food choices.36

Method

The sample

Participants were enlisted to this study using three methods: Harrison's Research, a market and health research company was used to recruit participants; a flyer explaining the study was posted at various locations on campus at the Flinders University of South Australia; and 'snowball' sampling was carried out, whereby potential respondents were nominated by existing participants.

As is the case in qualitative research more importance was given to the quality of participants' experience, than to the number or size of the sample. As such, participants were purposefully sampled for recruitment. Purposive sampling involves the selection of participants who are information rich37, and Popay et al 38 identify information richness as a marker of quality in qualitative research. Purposive sampling in this study was achieved by selecting participants between 19-27 years of age who were the primary food provider in their household, as earlier research suggests that these people are more likely to consider the safety and quality of their food.39 Seven of the eight participants were students when data was collected with the eighth participant being unemployed (see Table 1). Participants experienced a variety of living arrangements including shared households, living with partners, with 2 living with one or more parent. All were responsible for the household grocery shopping. As we were also interested in the views of a broad range of respondents a vegan and an participant with a background in health and nutrition were actively recruited.

Methods

Data were collected through semi-structured in-depth interviews. Interviews provide a way of extracting and querying the meanings that people attach to their experiences. This is of importance in qualitative research where one aims to have evidence of people's own experiences.38 The semi-structured interviews followed a schedule which served as a guide. The schedule, which was generated by the research team on the basis of social theories of trust, was piloted with two volunteers before the interviews. As pertinent issues arose during interviews, these were added into the questioning. However, core questions remained constant

throughout the interviews to provide a basis for contrast and comparison. All interviews were conducted by the primary researcher. Interviews were audio-taped with permission and were transcribed. All respondents' names were changed to maintain confidentiality. The study was approved by the Flinders University and Southern Adelaide Health Service Social and Behavioural Research Ethics committee.

Analysis

Data were coded and managed using NVivo, version 8. Three orders of analysis were employed: first, second and third order. In first stage analysis, categories were constructed in relation to responses to the interview schedule questions.

Second order analysis examined the data from a theoretically informed perspective to generate ideas and to frame the data. Third order analysis reflected on the original research questions in light of the new data that has been collected. These three levels systematically progressed the analysis beyond mere description to an interpretation of the data contexualised within existing knowledge.38

Results

Eight participants consisting of four males and four females were recruited for in-depth interviews. A short description of the participants is given in Table 1.

Table 1: Names (given for research), age, occupation and living arrangements of research participants

Name*	Age	Occupation	Living arrangements
Daniel	23	Student	Share household
Susan	23	Student	With parents
Amir	19	Student	Share household
David	24	Student	With partner in share household
Luke	23	Student	Share household
Samantha	21	Student	With partner in share household
Marilyn	21	Unemployed	With parents
Elizabeth	27	Student	With partner

(*all participants were given pseudonyms)

First order analysis

Four dominant categories arose from the interview data. These were (1) cost, convenience and food choice, (2) perception of Australian food governance, (3) health and young people and (4) young people's experience of food and trust. These will be discussed in turn.

1. Cost, convenience and food choice

Throughout all of the interviews, food choice was most frequently spoken about in relation to cost. This is highlighted by David and Samantha in the following excerpts.

David: I know what I want to buy, but then I'll choose the one that's on special I s'pose. (Age 24)

Samantha: I tend to think about it [health] a little bit, but price is one of the biggest things for me…I've got a mortgage and I'm a fulltime student so yeah, it's just other things get in the way. (Age 21)

Convenience, in terms of ease of preparation and procurement were also factors in the food choices of the young people who were interviewed as highlighted by Luke, below. People often shopped where they had always shopped and bought similar foods each week.

Luke: I guess the reason people buy them from a supermarket - me as well, why I buy pasta sauce and beans - is because: one, I don't really know how to make my own pasta sauce correctly, and two, because it takes a lot of the effort out, getting it from a supermarket, and beans as well, to prepare them beforehand takes a long time, you have to let them soak for a bit and just getting them from a can is a lot easier (Age 23)

Cost was also viewed as a measure of quality. It was often acknowledged that if one is to expect a better quality, safer product than one must expect to pay more for it.

Susan: So yeah if it is going to be expensive then I'd rather buy that then, I dunno a packet of black and gold yoyos or something like that (Age 23).

However, the ability to purchase these superior products was often seen as being beyond the reach of the young participants due to financial strains, and therefore other alternatives had to be relied upon, as indicated by the responses below.

Daniel: If I wanna eat well I am going to have to spend a lot more money (Age 23).
Elizabeth: I'd love to buy organic and free range meats, but I don't really at the moment just because it does cost more still (Age 27).

2. Perception of Australian food governance

Overall, participants believed that Australia has satisfactory regulations in place to keep food safe. However, they had limited knowledge of where and how food regulation occurred. None of the participants could name Food Standards Australia and New Zealand, the organization responsible for food regulation in Australia; instead they placed responsibility with the government, individual supermarkets and shop owners. While there was a general perception that Australian standards and food governance were world-class, other countries were viewed as more questionable.

Elizabeth: It's like yeah you do assume that we have all of those regulations here even though you don't know a thing about them and you don't know who's responsible for it (Age 27).

Samantha: I think everybody thinks Australia has better controls than say some Asian countries and that kind of thing. And you hear about health scares a lot more overseas than here. (Age 21)

3. Health and young people

Participants were asked about health and the impact that this had on food purchases. Data was analysed in terms of short term health and long term health impacts. Short term health was viewed by participants as consisting of good and bad food choices. Good food choices were often spoken about with respect to fresh or organic food, which was viewed, despite being expensive, as a superior product that was both healthier and more natural than other foods. Foods that were believed to be bad were those that were packaged, not considered as "wholesome" or contained too many unspecified chemicals.

Elizabeth: mostly I just buy fresh as in raw food so yeah, fruit and veg and fresh meats that don't have anything done to them most of the time. And I don't buy a whole lot of packaged stuff just cos I don't think it's very good for you (Age 27).

While participants were conscious of long term health and believed it to be important, these concerns were not reflected in everyday purchases. Other factors such as cost and convenience were spoken about more frequently in regards to food choice.

Amir: [Thinking about long term health] Not at this stage actually, maybe in 40, 50 years, two grandkids, maybe (Age 19).

Daniel: I have a family problem with heart disease, and pretty much the doctor said yeah cut that out, so I am conscious, but then again I know I am not eating as well as I should, I don't eat enough vegetables and things like that (Age 23).

4. Young people's experience of food and trust

A final category explores young people's experience of food and trust. This category can be broken down into three sections pertaining to personal responsibility, risk taking, and trust in information sources. Participants spoke at length about personal practices to keep food safe, such as checking dates, the smell and the appearance of foods, and storing food correctly. These practices were often carried out on a daily basis and were seen to be one's own responsibility and part of the routine of shopping. These practices, as highlighted by David and Samantha, served to enhance trust in the food.

David: and when it comes down to fresh produce, fruit and vegetables and meats and things, I s'pose it is just a matter of experience as to know what, what's good and what's not, so that's up to me I s'pose. (Age 24)

Samantha: Yeah I'm big on the fridge, meat down the bottom and anything else up top. I've always been big on that (Age 21).

Evident in some participants' responses was a willingness to take risks with food. This was demonstrated through the re-purchasing of food with which participants had had prior negative experiences, such as food poisoning, and through risky behaviours such as so-called "dumpster diving" (the practice of sifting through

commercial or residential trash to find items that have been discarded by their owners) and eating contaminated food.

Susan: I knew what I was getting myself into [food poisoning], it was just the romance of having a curry at Brick Lane and it was cheap (Age 23).

Daniel: We found a maggot in our rice and it didn't bother me in the slightest I kept eating, and I wasn't sick (Age 23).

A final aspect of experience relates to trust in information sources. Utilisation and preference for food and nutrition information sources varied amongst participants. Generally, the young participants sourced food and nutrition information from places such as friends and family as well as expert sources, such as scientific reports and food labels. The information on food labels was however, often viewed by participants as scientific and too complex.

Elizabeth: There's a lot of ingredients in the packaged stuff that you don't know really what it is even if you read on the box, like I don't know what it is (Age 27).

Participants were also asked about their knowledge and opinions of media coverage of food scares. Media reports were generally trusted, in the sense that participants believed that media information needed to be factually correct. However, participants also acknowledged that media stories tend to be exaggerated and therefore risk was blown out of proportion.

Samantha: I do keep in mind that it probably is sensationalised. If … they report on something really big like a study or something and I'm interested in it I'll definitely go to other sources that are a bit more trustworthy (Age 21).

Food manufacturers were also generally viewed as untrustworthy sources of information, particularly in relation to the marketing strategies which are used to promote foods.

Some participants questioned practices around manufacturers' labelling of food.

Susan: …everyone puts on their packets the 99% fat free, but when you actually turn it over and look at the actual nutrition content and everything its not necessarily fat free (Age 23).

A major theme running through the first order analysis is the notion that young people, within their day to day lives, are not concerned with issues surrounding trust and food as life presents other, more necessary, demands. This idea will now be examined as second order analysis within the frame of social theories of trust.

Discussion

Second order analysis

Second order analysis explores the findings in light of a number of theoretical 'lenses' which have been developed by various authors.

Trust as routine –"taken for grantedness"

The nature of trust is an elusive and complex phenomenon.40 Möllering41 views the concept of trust as routine, capturing the idea of trust as being taken for granted. He argues that we trust others every day, generally never pausing to reason if that trust is, in fact, justified; we are therefore in a position of vulnerability towards others from whom we anticipate no harm. Möllering41 also points out that when trust is a matter of routine, routine is undertaken without question, without assessing other alternatives and without justification. This notion of trust as "taken for granted" was evident throughout the responses of the participants within this study as most of the participants were not concerned with the safety and quality of their food, and some had not even considered this to be an issue before being questioned. There was a general presumption that food regulation was occurring somewhere and somehow, the exact details of which could not be nominated by any of the young people. All of these characteristics suggest young people's trust in food is routine and taken for granted.

Trust and risk –" confidence"

Mollering's41 suggestion that trust is 'routine' is contested by Luhmann's theory of trust. Luhmann42 argues that risk is an important dimension of trust; what or how much is at risk has an impact on one's decision to trust. He suggests that if there is no risk considered in an individual's decision, they have confidence or expectation rather than trust. Consequently, young people were not consciously weighing the risks involved in health and food safety. For this reason, we argue that there is no investment of trust in their food choices; they simply placed confidence in the notion that someone (or something) was responsible for food safety and regulation. Luhmann43 argues that there is a difference between confidence and trust, in that trust requires an element of risk. In other words, in order for an individual to invest

trust, the associated benefits must outweigh the risks involved. This level of thinking was not apparent in the young people in this study indicating a lack of reflexivity in young peoples' consideration of health.

Reflexivity, trust and young people

To be reflexive is to see one's life as something that does not just unfold, but is actively constructed through one's own efforts.44 The idea of reflexivity is at large in trust research, as it has been theorised that in modern society we are constantly forced to anticipate outcomes and assess risk through reflexive thought.45 The concept of reflexivity was pertinent to understanding young people's trust in food and has become a prominent theme throughout this analysis. Giddens45 would argue that the young people in this study are non-reflexive; that is, they do not consciously think about food regulation when making food choices. This was evident in a number of interviews where participants said that they had never considered the idea of food regulation and its role in food safety. The participants made the assumption that the food system was functioning in their best interest, and demonstrated an apparent lack of consideration regarding food safety and regulation. This is not to say that these young people lacked an overall reflexive capacity. On the contrary, there is evidence to suggest that they were reflexive in other areas which directly impacted on their lives such as cost of consumables, which was prominent in the participants' responses. Moreover, younger people often display more reflexivity around visual display of identity and appearance than investing time in concerns about long term health issues or food safety.44

Young people, food and health

The literature demonstrates that there has been a significant increase in consumer concerns regarding food safety and the quality of food.27, 28, 46, 47 Berg40 and Shaw48 have demonstrated that consumer trust can be jeopardised by food scares, such as that of BSE crisis in Britain. Australia, whilst isolated from major international food scares, has demonstrated similar trends. In an Australian survey, Williams et al.27 found that 45% of their respondents aged 18 years and over were more concerned about food safety and quality than five years ago. Within Australian research, concerns focus upon pesticides, food additives and preservatives and food poisoning.27, 28

While few studies focus exclusively upon younger people, the literature suggests that young people are less concerned about food choice and diet and more likely to

engage in behaviours which are in opposition to public health messages, such as snacking on convenience foods that are high in fat and sugar.2, 28, 30 The results from this study support this finding.

Food choice is dynamic across the lifespan.2, 3, 30-32 The results of this study suggest that this is the case in regards to young people's trust in food. Our results contrast with other studies with older population groups that have shown greater levels of concern about food safety and a greater level of reflection about food and health issues.19, 28

Third order analysis

In terms of the research questions that framed the study, the following comments can be made. The first aim was to identify factors that determine the nature of young consumer trust in food. Respondents in this study were more likely to speak about food choices in terms of cost and convenience, rather than considering trust, which was generally taken for granted. Similar findings have been suggested in other empirical research, for example Chambers et al49 found that cost, time, health and appearance were motivators of food choice, with cost being a barrier to healthy eating in those aged 18-30 years. Time and convenience motivators, which were evident in the results presented here were identified by Chambers et al.49 and Maquis50 as important factors in the food choices of young adults. In relation to long term health issues, Lupton28 and Green et al30 both found that younger participants were less concerned than older participants with food choice and healthy diets and were more likely to take risks in terms of food choice and health. This trend was evident in this study suggesting that younger participants are more concerned with issues of cost and convenience than trust in the safety and quality of food.

A second aim was to identify sources of information that influence young consumer food choices. Participants were generally very trusting of their own practices in choosing and storing food, but when sources of information were sought, trustworthy sources were considered to include family, friends and experts such as medical sources and food labels. Similar preferences for information sources have been found elsewhere with adolescents and older population groups.34, 35, 51 Media sources of information were seen to exaggerate risk, but the information was still deemed credible and useful. Information originating from the food industry or private business was perceived to be less trustworthy than that from more impartial sources

such as the government, reflecting the results of Coulson's35 research with adolescents.

The final aim of this study was to investigate how (mis)trust impacts on young people's food choices. The data suggest that there are no overt levels of mistrust as responses were generally positive towards the food system and there was an element of risk taking in regards to food safety. This could be attributed to a number of factors. Firstly, it was evident that many of the respondents – perhaps because of their youth – had never had negative experiences with food that warranted mistrust. As noted earlier, Luhmann42 argues that if there is no risk involved in a decision, investment is regarded as confidence, not trust. However, he also argues that an experience of risk may lead to a shift from confidence (considered by Luhmann to be blind faith) to trust or mistrust as an individual becomes aware of possible consequences of misplaced trust.42 Therefore, if an individual has never experienced the risks involved with food choice, it is likely that they have confidence rather than (mis)trust with regards to food. Secondly, the taken for granted nature of food safety and the noted lack of reflexivity regarding the food system may be a reason for the nonchalant attitude expressed by the participants about food safety and quality. Participants did not consider food safety issues, and indeed took risks with food. These behaviours suggest that mis(trust) does not play a major role in the food choices of the participants.

Implications of the study

While the purpose of this study was to gain the opinions of young people generally, accessing participants proved challenging, thus most of the participants were university educated students. This may be seen as a study limitation since the viewpoints presented may only be those harboured by this particular group. This homogeneity does, however, provide an interesting conundrum. Tulloch and Lupton52 associate better education with a capacity to access a greater range of information sources and to assess the information provided. If this were true, it would have been expected that the educated group of participants in this study would be more reflexive in their food choices. Yet what was found suggested the opposite: despite a supposed high reflexive capacity, issues of mistrust in food choices were not overly apparent within this group. Rather, food choices were determined mostly by cost issues, perhaps reflecting the financial status of university students.

Regardless of possible limitations of the study, the research holds important implications for primary health care practice. Firstly, the data collected here questions young people's engagement in public health imperatives, due to an apparent lack of interest and consideration of food choice and health. Given the importance of a foundation of healthy food practices in the younger adult years, engaging young people within health messages should be of greater priority to health promoters. Better understanding the motivators for healthy food practices within this age group, particularly in relation to food choice, could be explored through further research. Furthermore, in an age where we are often heavily reliant on food labels for health information, this research calls into question the effectiveness of food labelling as a means of delivering nutrition information.53 Participants in this study often found food labels to be 'scientific' and much of the information presented, such as ingredients lists and complete nutrient breakdown, was not utilized. This should be of concern for new labelling systems which are currently being generated for general use, as participants in this study were relatively well educated individuals. Further research should be conducted to gain an understanding from where young people are accessing their food and health information so appropriate nutrition messages can be more efficiently directed.

Conclusion

Few studies have delved into the impact of trust on the food choices of young adults. While the results of the qualitative study presented here are exploratory, and are not meant to generalize for all young people, the findings suggest that the young people in this study are concerned with issues of cost and convenience in regards to food choice rather than the safety of food. The group of young people in this study was conscious of health, but issues of long term health did not greatly impact on their food choices, reflecting findings from research elsewhere. Analysis shows that these young people, despite being educated are not generally reflexive in regards to food choice, food safety or quality and instead have confidence in the food system to provide a safe product and are therefore, content to take risks with food choice and health.

These findings present a challenge to the impact and value of public health nutrition messages towards this age group. The findings suggests that further attention be given to how to engage younger populations in the importance of nutrition messages, as the findings suggest that young people are often consumed with other pressing issues such as financial and career building issues. These factors should

not be seen as barriers to engagement, but could be actively used to engage this age group. Further research in this domain should endeavour to include a range of young people from a range of socio-demographic groups to gain a more comprehensive understanding of food and trust from a young person's perspective.

References

1. Australian Institute of Health and Welfare. Australia's Health 2008. Canberra Australian Institute of Health and Welfare; 2008.

2. Caplan P, Keane A, Willetts A, Williams J. Studying food choice in its social and cultural contexts: approaches from a social anthropological perspective Food, Health and Identity London, New York Routledge 1997.

3. Sobal J, Bisogni C, Devine C, Jastran M. A Conceptual Model of the Food Choice Process over the Life Course In: Shepherd R, Raats M, editors. The Psychology of Food Choice Oxfordshire 2006. p. 1-18.

4. Hall MA, Dugan E, Zheung B, Mishra AK. Trust in Physicians and Medical Institutions: What IS IT, Can It Be Measured, and Does It Matter? The Milbank Quarterly. 2001;79(4):613-39.

5. Schoorman DF, Mayer RC, Davis JH. An Intergrative Model of Organizational Trust: Past, Present, and Future. Academy of Management Review. 2007;32(2):344-54.

6. Mollering G. The Nature of Trust: From Georg Simmel to a Theory of Expectation, Interpretation and Suspension. Sociology. 2001;35(2):403-20.

7. Gilson L. Trust and the development of health care as a social institution. Social Science and Medicine. 2003;56(7):1453-68.

8. Crease RP. The paradox of trust in science. Physics World. 2004 March 2004:18.

9. Brownlie J, Howson A. 'Leaps of Faith' and MMR: An empirical Study of Trust. Sociology. 2005;39(2):221-39.

10. Baier A. Trust and Antitrust. Ethics. 1986;96(2):231-60.

11. Knight, A. Intervening Effects of Knowledge, Morality, Trust, and Benefits on Support for Animal and Plant Biotechnology Applications. Risk Analysis 2007; 27(6): 1553-1563.

12. Dugan E, Trachtenberg F, Hall MA. Development of abbreviated measures to assess patient trust in a physician, a health insurer, and the medical profession. BMC Health Services Research. 2005;5(64).

13. Meijboom FLB, Visak T, Brom FWA. From Trust to Trustworthiness: Why Information is Not Enough in the Food Sector. Journal of Agricultural and Environmental Ethics. 2006;19(5):427-42.

14. Heasman LT. The Food Wars, Public Health and the Battle for Mouths, Minds and Markets. London: Earthscan Publication; 2004.
15. Bildtgard T. Trust in food in modern and late-modern societies Social Science Information. 2008;47(1):99-128.
16. Fischler C. Food, self and identity. Social Science Information. 1988 June 1, 1988; 27(2):275-92.
17. Lockie S, Lyons K, Lawrence G, Mummery K. Eating 'Green': Motivations behind organic food consumption in Australia. Sociologia Ruralis 2002;42(1):23-40.
18. Meijboom FLB. Trust, Food and Health. Questions of Trust at the interface between Food and Health Journal of Agricultural and Environmental Ethics. 2007;20(3):231-5.
19. Coveney J. Food and trust in Australia: Building a picture. Public Health Nutr 2007;11(3):237-45.
20. de Jonge J, van Trijp H, Renes RJ, Frewer L. Understanding Consumer Confidence in the Safety of Food: Its Two-Dimensional Structure and Determinants. Risk Analysis. 2007;27(3):729-40.
21. Cade J, Calvert C, Barrett J. How could the BSE crisis affect nutrient intake? Comparison of the beef and non-beef eating meat eaters from the UK Women's Cohort Study Eur J of Clin
Nutr. 1998;52:151-2.
22. Moore, O. Understanding postorganic fresh fruit and vegetable consumers at participatory farmers' markets in Ireland: reflexivity, trust and social movements. International Journal of Consumer Studies. 2006; 30: 416-426.
23. Giddens A. The Consequences of Modernity. Stanford: Stanford University Press; 1990.
24. Beck, U. World Risk Society. Cambridge: Polity Press; 2005.
25. Giddens A. Modernity and Self-Identity: Self and Society in the Late Modern Age. Stanford: Stanford University Press; 1991.
26. Hansen J, Holm L, Frewer L, Robinson P, Sandoe P. Beyond the knowledge deficit: recent research into lay and expert attitudes to food risks. Appetite. 2003;41(2):111-21.
27. Williams P, Stirling E, Keynes N. Food fears: a national survey on the attitudes of Australian adults about the safety and quality of food Asia Pac J Clin Nutr. 2004;13(1):32-9.
28. Lupton D. Lay discourses and beliefs related to food risks: An Australian perspective. Sociol Health Illn. 2005;27(4):448- 67.

29. Food Standards Australia New Zealand. Consumer Attitudes Survey 2007: A benchmark survey of consumers' attitudes to food issues Canberra Food Standards Australia New Zealand 2008.
30. Green J, Draper A, Dowler E. Short cuts to safety: risk and “rules of thumb" in accounts of food choice. Health Risk and Society 2003;5(1):33-52.
31. Huffman WE, Rousu M, Shogren JF, Tegene A. Who do consumers trust for information: The case of genetically modified foods? Am J of Agric Econ. 2004;86(5):1222-9.
32. Macintyre S, Reilly J, Miller D, Eldridge J. Food choice, food scares and health: the role of the media. . In: Murcott A, editor. The Nation's Diet: The Social Science of Food Choice. New York Addison Wesley Longman 1998. p. 228-49.
33. Schafer RB, Keith PM. Influences on food descisions across the family life cycle Journal of the American Dietetic Association 1981;78:144-8.
34. Worsley A, Lea E. Consumers' Personal Values and Sources of Nutrition Information Ecology of Food and Nutrition 2003;42:129-51.
35. Coulson N. Source of food information: whom do adolescents trust? Appetite. 2002;38:199-200.
36. Liamputtong P, Ezzy D, editors. Qualitative Research Methods. 2 ed. Melbourne Oxford Press 2005.
37. Patton, M. Qualitative Research and Evaluation methods. Sage Thousand Oaks: California: 2002.
38. Popay J. Rationale and standards for the systematic review of qualitative literature in health services research. Qual Health Res. 1998;8:341-51.
39. Coveney J. Food, Morals and Meaning: The Pleasure and Anxiety of Eating. London Routledge 2006.
40. Berg L. Trust in food in the age of mad cow disease: a comparative study of consumers' evaluation of food safety in Belgium, Britain and Norway. Appetite. 2004;42(1):21-32.
41. Mollering G. Trust: Reason, Routine, Reflexivity Oxford Elsevier; 2006.
42. Luhmann N. Risk: A Sociological Theory. New Brunswick, New Jersey: Transaction Publishers; 2005.
43. Luhmann, N. (1979) Trust and Power: Two works by Niklas Luhmann. Brisbane: John Wiley and Sons.
44. White R, Wyn J, editors. Youth and Society: Exploring the social dynamics of youth experience. Second ed. Melbourne Oxford 2008.

45. Giddens A. Risk, trust, reflexivity. In: Beck U, Giddens A, Lash S, editors. Reflexive Modernization: Politics, Tradition, and Aesthetics is the Modern Social Order.
Cambridge: Polity Press; 1994. p. 194-7.
46. Järvelä K, Mäkelä J, Piiroinen S. Consumers' everyday food choice strategies in Finland. International Journal of Consumer Studies. 2006;30(4):309-17.
47. Tucker M, Whaley SR, Sharp J. Consumer perceptions of food related risks. International Journal of Food Science and Technology 2006;41:135-46.
48. Shaw A. Discourses of risk in lay accounts of microbiological safety and BSE: a qualitative interview study Health Risk and Society. 2004;6(2):151-71.
49. Chambers S, Lobb A, Butler L, Traill WB. The Influence of age and gender on food choice: a focus group exploration International Journal of Consumer Studies. 2008;32:356-65.
50. Marquis M. Exploring convenience orientation as a food motivation for college students living in residence halls. International Journal of Consumer Studies. 2005; 29(1):55-63.
51. Kornelis M, de Jonge J, Frewer L, Dagevos H. Consumer Selection of Food-Safety Information Sources Risk Anal. 2007; 27(2):327-35.
52.Tulloch J., Lupton, D. Consuming risk, consuming science. Journal of Consumer Culture 2002; 2(3): 363-383.
53. Wandel M, Bugge A. Environmental Concerns in
Consumer Evaluation of Food Quality Food Quality and Preference. 1997;8(1):19-26.

ACKNOWLEDGEMENTS
Food and Trust Team, Professor John Coveney, Professor Paul
Ward, Associate Professor Anne Taylor, Dr Julie Henderson,
Samantha Meyer and Trish Clark

FUNDING
Australian Research Council funded “Food and Trust” project
(ID: DP0878774)

Peer-reviewed conference papers

Sociologies of trust: a critical analysis and extension of the work of Anthony Giddens and Niklas Luhmann.

Meyer, S. B. and P. R. Ward (2009a). Sociologies of trust: a critical analysis and extension of the work of Anthony Giddens and Niklas Luhmann. Social Quality in Asian Societies Conference Proceedings, Seoul National University, South Korea, Seoul National University.

Samanatha B Meyer (samantha.meyer&flinders.edu.au) & Paul R Ward (paul.ward@flinders.edu.au). Discipline of Public Health, Flinders University, Adelaide, Australia.

Introduction

Trust is imperative for the smooth functioning of any social systems (Parsons 1951) and sociology continues to be fundamental for understanding the role and importance of trust in modern society and the complex role that trust plays in the relationship between individuals and social systems (otherwise known as structure-agency). Through the study of social organisation, institutions, and the development of society, sociology provides theoretical frameworks through which we can view trust within a social setting. The application of social theory provides a useful conceptual framework for exploring trust (Brown 2008), and can be used as a lens through which we can analyse the role of trust within and between social systems and individual actors.

Trust has become an important topic of research in the past two decades and consequently, there is a wealth of literature on trust in a number of disciplines including sociology (Meyer & Ward 2008a; Meyer, Ward et al. 2008; Mollering 2001a; Mollering 2001b; Scambler & Britten 2001; Giddens 1994; Luhmann 1979), public health (Gilson 2003; Ishikawa & Yano 2008; Lupton 1996; Meyer & Ward 2008b; Rhodes & Strain 2000; Taylor-Gooby 2006; Thom 2000; Thom et al. 2002; Tibandebage & Mackintosh 2005; Trachtenberg et al. 2005; Ward & Coates 2006; Whetten et al. 2006; Wright et al. 2004), psychology (Miles & Frewer 2002; Silvester et al. 2007) and political science (Alexander 1996; Fukuyama 1995; Hardin 2006; Janssen 2006) which reflects the growing awareness in both research and policy of the importance of trust for society's wellbeing (Meyer & Ward 2008a). For example, Mechanic & Meyer (2000:657) state that *'trust is fundamental to effective interpersonal relationships and community living'*, which supports Crawford's

argument that a decline in trust may lead to continuous vigilance and anxiety within society (Crawford 2004).

Additionally, in the past decade, trust literature from a range of disciples has highlighted a decline in the trustworthiness of several democratic systems (Canada, US, UK, Sweden) (Hardin 2006), and the emergence of so-called 'high trust' and 'low trust' societies (Fukuyama 1996). To compound the increasing levels of distrust, Luhmann (1979:16) argues that in the future, the notion of trust will become increasingly important and, *"one should expect trust to be increasingly in demand as a means of enduring the complexities of the future which technology will generate"*. This argument may also be understood within the context of the 'risk society' (Beck 1992), whereby technology will create ever more risks in the future, which, given the intimate relationship between risk and trust, moves 'trust' even more centre-stage. Whilst the inter-relationship between risk and trust is discussed later in this paper, it is important to note here since it provides a justification for the importance of trust within modern societies.

This paper presents an overview of the construction and operationalisation of trust within Western cultures; however, the following theoretical analysis, critique and framework provide a sociological platform from which Asian scholars may investigate trust within Asian societies. This paper encompasses three main objectives. First, it will address the role of social theory in providing a theoretical lens through which we can understand the functional role that trust plays within and between social systems. Second, it outlines and critiques the theories of two prominent social theorists (Anthony Giddens and Niklas Luhmann) and their conceptualizations of trust in modern society. Finally, we propose a more comprehensive theoretical perspective on trust, which has been derived from our critique of Giddens' and Luhmann's work. Overall, we hope to encourage the use of the suggested framework to determine its application in Asian societies in order to further develop social theories of trust.

The theoretical framework presented in this paper was developed after extensive analysis and critique of the theoretical and empirical literatures on trust (Meyer, Ward et al. 2008; Meyer & Ward 2008a; Meyer & Ward 2008b; Ward 2006; Ward & Coates 2006). This contemporary framework is based on a critique and analysis of Giddens' and Luhmann's social theories of trust because they have both been consistently cited in the majority of theoretically informed literature on trust (Lupton

1997; Mechanic & Meyer 2000; Gilson 2003; Bordum 2004; Salvatore & Sassatelli 2004; Bordum 2005; Pearson, Crane et al. 2005; Andreassen, Trondsen et al. 2006; Ward 2006; Ward & Coates 2006; Meyer, Ward et al. 2008; Meyer & Ward 2008b). Our analysis and critique of their theories will help to shed light on ways of 'measuring' trust within/on/of individuals and social systems. The ultimate goal of such an endeavour will be both understanding and responding to distrust and building on areas of trust, both of which will be necessary for the functioning of social systems, and society at large.

Before moving into a critical examination of Giddens' and Luhmann's ideas, it is essential to acknowledge that both theorists specifically recognise two types or levels of trust; institutional trust and interpersonal trust. Institutional trust is that which is placed in the system or institution (e.g. the economic or legal system, a University or hospital). Both theorists regard interpersonal trust as being both negotiated between individuals (a decision to trust someone or not) but also being a learned personal trait. Where they differ is the directional relationality of trust in individuals and social systems, and between individuals and social systems. Therefore, the question becomes '*what is the relationship between trust in an individual and/or the social system(s) which they represent?*'. A secondary question then becomes *'what is the direction of that relationship?*'. Put simply, for someone to trust a sociologist, do they first need to invest trust in the institution of a University and/or the knowledge base of Sociology, or for someone to trust Sociology, do the first have to invest trust in a sociologist? Our argument in this paper is that neither of these polarities provide an adequate explanation, given the dialectical nature of structure-agency. Rather, we argue for *more-less* thinking rather than *either-or* thinking – in different circumstances, trust (or for that matter, mistrust) may initially be invested in agents and/or systems, which will be necessarily situationally and contextually contingent. Indeed, Gilson (2005:1382) argues that "trust occurs in different types of relationships and is rooted in a combination of interpersonal behaviours and institutions that underpin those behaviours" and others have argued that (mis)trust can be understood as a result of a multidimensional 'web' of relationships (Thiede 2005; Meyer, Ward et al. 2008; Meyer & Ward 2008b). This paper now moves on to a more in-depth analysis and critique of Giddens' and Luhmann's theories of trust and to the proposition on a new model, taking into account the agency-structure dialectic.

Giddens' and Luhmann's theories of trust: an analysis and critique

Although the theories of Giddens and Luhmann analyse the function of trust between different levels of society, they address many of the same issues even though they conceptualize and operationalise them differently. In order to provide a framework for analysis and interpretation, we have organized our critique with 5 key categories: ideas on social change; conceptualizations of trust; the impact of modernity on trust; the relationship between trust and risk; and trust as a function in/for society. Whilst some of the ideas of Giddens and Luhmann will be familiar to readers, it is important to understand some of their macro-theoretical ideas about social change in order to contextualize and fully understand their conceptualizations of trust and hence, the form and function of trust within/for society and relationships.

Ideas on Social Change

Giddens' ideas on social change may be captured by the notions of a 'self-referential society' which is built on an 'agency-structure dualism'. Giddens is well-known for his structuration theory which is an attempt to resolve theoretical dichotomies of social systems such as agency/structure, and micro/macro perspectives (Giddens 1986). For Giddens, a structure is composed of rules and resources that both govern, and are available to agents. We as humans are agents; agency is expressed through human action. Giddens explores whether it is individuals (micro) or social forces (macro) that shape our social reality but he avoids complete structural or agent determinism (Giddens 1986). Instead, he ties agency to structure because together, they interact and (re)produce society (Giddens 1986). He refers to this balance of structure and agency as the *duality of structure* – that is, that social structures make social action possible, and at the same time, that social action creates those very structures.

In this theory, Giddens also acknowledges that social structures are not unbreakable or permanent. As society constructs social structures through the repetition of actions, we also have the potential to deconstruct them. Giddens explains this as the 'reflexive monitoring of our actions' (Ortmann and Salzman 2002), meaning that we are able to look at our actions and judge their effectiveness in achieving their objective. Institutions (systems) are reflexive in that we can, as agents, use the knowledge we have about a social structure as a constitutive element to transform its organization (Giddens 1991). We can reproduce and transform structure (Giddens 1986). Structuration theory relies on the notion that our actions as agents are constrained and enabled by structures which are in turn produced and reproduced by our actions; the duality of structures (Giddens 1986).

Whilst Luhmann's ideas on social change may also be partly captured by the term 'self-referential society', one also needs to keep in mind the centrality of 'autopoiesis' which comes from biological systems theory. Autopoiesis is a process whereby systems (in this case, social systems) strive to develop themselves as self-managing or self-organising systems which can develop and maintain their boundaries with the outside world (in this case, other social systems). Luhmann is well known for his influential social systems theory which studies the complex systems that exist in nature, society, and science. It is a framework that affords the possibility of analysing the process of (re)producing a system within a system, boundaries within boundaries, and distinction within the distinguished (Luhmann 1997). The basic characteristics of social systems theory are social differentiation[8] and system formation; the differentiation of society and formation of internal and external systems. Society, via communication, is differentiated into social systems, based on the function of the systems (Luhmann is regarded by some as a functional structuralist) – which has lead to the development of social systems such as the economic, legal, political, and artistic systems, which are essentially differentiated by the form and semantics of communication within and outside of them.

For Luhmann, all system's boundaries depend on the self-organization of sub-systems (Luhmann 1997). If we understand society as a global system, then all systems within society depend and mutually interact with all other systems and subsystems. Luhmann focuses on making the distinction between systems and their environment (Luhmann 1997). Social systems theory analyzes how systems, boundaries, and trust meet the requirement for the autopoietic reproduction of societal systems (Luhmann 1997). Unlike structuration theory, social systems theory does not address the individual other than to say that individuals (or *psychic systems*, as they are referred to by Luhmann) (re)produce systems - being *social* involves a network of communications or interactions, and we as society, use the environment to stimulate communication in order form common identities, internal systems, and boundaries between other systems and the environment (Stehr & Bechmann 2005).

---

[8] Social differentiation was the first concept of society that established a theory that contained directions for analysis that stimulates both theory and research. Social differentiation has proven to be irreplaceable despite all of the criticisms that have been aimed at it (Luhmann 1990).

Conceptualisations of Trust

Giddens argues that trust rests on a vague and partial understanding (Giddens 1990). An individual's decision to trust is based on inductive inferences from previous experiences that are believed in some way to be reliable for the present. In order for someone to place trust in people or in abstract systems (the legal system, the political system etc.) their decision must *combine* both good reason (from past experience), and a further element that satisfies their 'partial understanding'; a 'leap of faith' which brackets[9] out ignorance or lack of information (Giddens 1991). For instance, if an individual is summoned to court and requires the assistance of a lawyer, they may have confidence in their lawyer's ability in the courtroom because of previous trials (experience leading to good reasoning). In this case, the individual is likely to place trust and choose to seek assistance from this lawyer. However, Giddens would argue that for the individual to trust the lawyer, a further element is required that presumes a leap of 'faith' or 'ontological security'. Not only are they basing their trust on their experience, they are basing it on further element that satisfies their partial understanding – a 'faith' in the unknown variable such as the lawyer's involvement in the case, their knowledge or expertise in the trial at hand etc. If they had complete knowledge of the lawyer's ability to function in court, their decision to hire the particular lawyer would not be based on trust, but rather, rational choice.

The 'leap of faith' Giddens refers to may be linked to a quasi-religious element or ontological security, drawing upon society's sense of safety in the continuity and order of the world and its events (Giddens 1991). He describes it as a commitment to something other than just cognitive understanding (Brownlie & Howson 2005); there is no need to trust in a situation of complete knowledge (Giddens 1991).

Luhmann addresses the concept of trust in terms of its function in society (Luhmann 1988) and says that trust is the glue that holds everything together in social life because it reduces the complexity of how we think about the world around us so that we have the capability to act and make decisions (Pearson, Crane et al. 2005). An

[9] Giddens often uses the term 'brackets'. Bracketing in this sense means to remove or compensate for what we are lacking.

individual's decision to place (mis)trust reduces complexity in society because both decisions function as way for us pursue our actions rationally (Luhmann 1979). Social systems need to reduce complexity in order to function properly and with increasing complexity, the need for assurances through trusting relations grows accordingly (Borch 2005). (Mis)trust cannot be conceptualized as one-dimensional. Trust is best understood as in a multidimensional sense (Brown 2008), and we must view (mis)trust as layers of an onion (Ward 2006); trust in one social system is highly dependent on trust in other social systems and individuals (Luhmann 1979) and therefore, trust in individuals is highly contingent on trust in a variety of social systems (Meyer, Ward et al. 2008). Luhmann then goes on pose a question, *"it is all too obvious that the social order does not stand and fall by the few people one knows and trusts. There must be other ways of building trust which do not depend on the personal element. But what are they?" (Luhmann 1979:46)*. He then proceeds to further explore and explain the importance of trust in and for social systems (and of social systems trusting each other), although the question still remains a useful one, worthy of empirical investigation in both a Western and Asian societies.

In addition to providing a conceptualisation of trust, Luhmann also makes a semantic distinction between trust, familiarity and confidence. Luhmann argues that as our society moves towards modernity, social and personal systems are forced to reduce complexity. Luhmann regarded both familiarity and trust as complementary ways of absorbing complexity (Luhmann 1988), and as being linked to one another, with trust presupposing familiarity (Luhmann 1979). Familiarity is based on experience that is represented in history. Similar to trust, familiarity reduces complexity because it excludes unanticipated action (Luhmann 1979).

Although they differ, trust and familiarity belong to the same family of self-assurances (Luhmann 1988). While trust is a solution for problems of risk, it has to be achieved within a familiar world. When the level of familiarity changes, it impacts the development of trust in human relationships (Luhmann 1988). As knowledge increases, unfamiliarity increases and consequently, so does conflict. Modernity has empowered individuals access to an abundance of unfamiliar knowledge (medical, legal advice etc.), and enables society to question this unfamiliar knowledge rather than remaining unaware of it. For example, while physicians were once deemed to have 'secret knowledge' that was unknown to lay people, expert information is now accessible through the internet, education, libraries, peers, as well as other sources.

With an increase in lay knowledge, the unfamiliar (medical advice) no longer blocks potential conflict between expert and lay person (Luhmann 1988). Prior to the growth of knowledge, lay people were less likely to question a physician's decision regarding medical treatment. This shift in lay knowledge has substantially increased the levels of social tension (Luhmann 1988).

Trust differs to familiarity in that although it too needs history to provide reliable grounds, it goes beyond past information it receives and acknowledges the risks associated with decisions made for the future. Trust reduces complexity in a different way; it uses the past to narrow down potential possibilities for the future. When we are familiar with something, we base the future events solely on the past. Trust helps us to make future decisions based on experience but also uses the knowledge of the past to minimize risk by tapering the number of possible actions. While familiarity is based solely on past experiences, trust takes into account both past experience *and* associated risks.

Luhmann focuses on familiarity as an unavoidable fact of life. While trust is a solution for problems of risk, it has to be achieved within a familiar world. If the level of familiarity changes, it impacts the development of trust in human relationships. In order to understand trust, we have to take familiarity into account (Luhmann 1988). Whether or not a person places trust in future events is extremely subjective as each individual has a different level of risk-seeking/risk-avoiding, trusting or distrusting. One of the risk calculating mechanisms that people use is familiarity (Luhmann 1988).

Luhmann also distinguishes trust from confidence. Both refer to expectations which may lapse into disappointment, however, they differ in perception and attribution (Luhmann 1988). We cannot live in a world full of contingent events without at least some expectation or we would always live in a world of unmanageable uncertainty (Luhmann 1988). Trust presupposes a situation of risk that can be avoided, but only if we are willing to forego the associated advantages that successful trust may grant. Trust requires some element of risk and is only possible in a situation where the likelihood of negative outcomes *may* be greater than the positives that successful trust awards (Luhmann 1988). If we choose one action in preference to another, despite the possibility of being disappointed, we are trusting. However, because the decision to trust was a choice we made, any disappointment is attributed internally (Luhmann 1988). Confidence occurs when we do not consider alternatives and rely

on our expectations. We have confidence that our expectations will not be disappointed. In the case of disappointment, we attribute blame externally because did not choose, but expected, and therefore the disappointment was not a result of our erroneous trust (Luhmann 1988). For example, if we have confidence in a transplant system that is delivering an organ, but the vehicle that is transporting it runs late, we do not feel betrayed or foolish for trusting, but are disappointed that the system failed. In many ways, Luhmann's distinction between trust and confidence shows similarities to Giddens' ideas of reflexive modernisation, whereby the act of 'trusting' becomes a conscious, reflexive act on the part of the agent.

The Impact of Modernity on Trust

A key component to understanding Giddens' theory of trust is the move towards what he calls 'reflexive modernisation' (Beck, Giddens et al. 1994). In his book *Consequences of Modernity,* Giddens talk about the characteristics of institutions that shape the modern era in which we live. The media, printing, and electronics are extensions of the social forces that shaped previous eras. Modern social forces such as the expansion of mass communication, particularly electronic communication, have made the interpenetration of self-development and social systems, up to and including global systems, more pronounced (Giddens 1991). This expansion has played a central role in mediating the organization of social relations and in turn, has created a demand for expert systems.

Expert systems are systems of expert knowledge, of any type, depending on rules of procedure transferable from individual to individual (Giddens 1991). Expert systems now penetrate nearly all aspects of social life in conditions of modernity (Giddens 1991). Pre-enlightenment, 'space' was the area around us, and 'time' was the experience one had while moving (Giddens 1991). Luhmann (1979) argues that as soon as systems differentiate themselves from their environment by creating boundaries (the construction of 'expert' systems), problems of time occur. In modern societies (post-enlightenment), our social space is no longer set by the boundaries with which we move. We now deal with virtual space and time. As we progress towards the future, we are confronted with new possibilities and thus new prospects of the future; trust is a solution to the problem of time as it is a means of anticipating the future and behaving as though it is certain (Luhmann 1979). Trust can only be secured and maintained in the present; uncertain futures arouse trust as the future contains far more possibilities than could ever be realised in the present (Luhmann

1979). It is for this reason that we rely on, or trust in, expert systems to bracket space and time by deploying modes of technical knowledge.

As noted above, expert systems penetrate nearly every aspect of social life in modernity – the food we eat, medicines we take etc. They extend to social relations and to intimacies of the self –doctors, surgeons, practitioners etc. are all as central to the expert system as the scientists, technicians, and engineers that create the medications and tests that physician's deploy (Giddens 1991). This differs from enlightenment because now that space and time is virtual; expert systems deploy technical knowledge that has validity independent of the practitioners who make use of them. Pre-enlightenment, we knew who made our food, who prescribed our medications etc. We now rely on expert systems in absence of a personal relationship with them (Giddens 1991). This is what Giddens identifies as the 'differentiated concept of trust[10]' (Giddens 1994 cited in Bordum 2004). We trust in these expert systems because they bracket the limited technical knowledge which most people possess about the information which routinely affects their lives (Giddens 1991). The trust we place in expert systems presumes a 'leap of faith' that is specifically related to both ignorance, and to the virtual time and space that modernity creates. For instance, there is no trust required if we completely know an expert system (how the technology of medicine occurs or exactly what are the factors surrounding a physicians diagnosis) (Giddens 1991). Trust in modernity underlies a mass of everyday decisions that we place, however, trust is no longer always the result of consciously taken decision; expert systems bracket our ignorance and simplify the factors in our decision to trust (Giddens 1991).

Whilst we are more dependent on expert systems in modern society, Giddens also argues that we recognise that expert systems themselves cannot adequately anticipate the future (Giddens 1991). This recognition has led to a push for more reflexive individuals who can no longer depend on the state but instead become agents of choice. Giddens (1991:144) argues that citizens desire more agency and he discusses what he terms the 'sequestration of experience' or more simply, the ways in which lay people take control over their own lives through the rejection of

[10] Giddens differentiated concept of trust is the idea that technical knowledge is valid regardless of the person who is making use of it. For instance, we can trust a mechanic to fix our car because they are a skilled tradesman regardless of if, based on their character, we would not trust them with our children.

certain technologies or through ‘re-appropriating’ different forms of technology for use by themselves (Meyer, Ward et al. 2008).

Modernity has created a need for expert systems because it is increasingly reflexive; so much so, that it ‘confounds the expectations of enlightenment thought’ (Giddens 1991). Enlightenment scientists and philosophers thought that they were paving the way for secure knowledge of the social and natural worlds. In reality, modernity has increased reflexivity and actually undermines the certainty of knowledge. We now demand proofs while still maintaining a principle of doubt. Modernity has expanded doubt that once only disturbed enlightenment thinkers, to one that is existentially troubling for ordinary individuals (Giddens 1991). Trust in modern expert systems underlies everyday decisions as it brackets out potential occurrences which were the individual seriously to contemplate them, would produce a paralysis of will (Giddens 1991), or as Beck (1992: 37) calls it, ‘eschatological ecofatalism’.

As noted earlier, Luhmann views society as a variety of systems that mutually interact and influence one another (Stehr & Bechmann 2005). Within modernity, one of the functions of social systems is to reduce complexity, so that ‘decision-making’ becomes more plausible. Systems exist as both personal systems (family, community, friendships etc.) and social action systems (political, medical, judicial etc.). Social phenomena such as interactions, organisations, and societies are all systems that are formed by distinguishing themselves from an environment of external events and operations that cannot be integrated into their internal structure (Stehr & Bechmann 2005).

The environment outside of an internal system is more complex because the modern world consists of more possibilities that the system itself can realise. For example, a medical system consists of many internal systems (expert areas, administrators, accountants, legal representatives etc.) that specialise in individual roles. If these divisions did not exist, the medical system itself would be too complex to maintain organisation. The representatives of the system would have to know far too much information about several specialties (law, medicine, administration etc.). Consequently, internal systems exhibit a greater deal of order because they have fewer possibilities (less variation in understanding) than the outside environment (Luhmann 1979). The system has a subjective representation of the environment and reduces the complexity to an amount that it can meaningfully orient itself with. The system achieves this by structuring the possibilities of its own experiences and

actions through the agreement of the system's members (Luhmann 1979). The inner order of a system helps to stabilise an extremely complex environment by organising a less complex system-order that is better suited to human capacities for action (Luhmann 1979).

It is important to understand Luhmann's ideas about the organisation of society because he views trust as a major component in the reduction of complexity between and within modern social systems. In other words, social systems cannot adequately deal with the sheer complexity of their environments (which are made up of all other social systems) and therefore, aim to reduce this complexity by limiting possibilities and developing trust. The same is true for individuals, who again cannot adequately deal with the complexity of the social world; hence the need for trust. In this way, trust becomes the core functional element which maintains social order and functioning.

The Relationship between Trust and Risk

Giddens (1991:109) states that "to live in the universe of high modernity is to live in an environment of chance and risk", and he goes on to make the explicit link between risk and trust, particularly related to ideas about ontological insecurities. In other words, when people feel insecure, there is an increased need to trust. Modern society has been conceptualized elsewhere as a 'risk society' (Beck 1992). Not to say that social life is more risky that it used to be, but rather, we now conceptualize risk as a fundamental means by which lay people and technical specialists organise the world (Giddens 1991). In modernity we are continually drawn into the present through reflexive organization. We are constantly forced to anticipate outcomes and assess how things are likely to diverge (Giddens 1991). Modernity reduces the overall riskiness of certain areas of life, while introducing new risk constraints that were unknown in previous eras (Giddens 1991). In previous eras, we did not have large pharmaceutical companies providing incentives for physicians to test medications on their patients, and thus, we did not endure health risks associated with dangerous medication. Alternatively, in modern society, we have the knowledge to advise pregnant women to take folic acid and avoid the risks of neural tube defects. Risk is an important component of trust because it adds another aspect to our partial understanding. What or how much we are risking has substantial influence on our decision to trust.

As already mentioned, Luhmann argues that if there is no risk *considered*, there is no trust (Luhmann 2005). While familiarity is based solely on past experiences, trust takes into account both past experience *and* the associated risks involved in the decision to trust. The notion of time is a central concern to Luhmann in relation to trust, and he outlines the problematic relationship between trust and time. *"To show trust is to anticipate the future. It is to behave as though the future were certain."* (Luhmann 1979:10). Giddens and Simmel deal with this problem by linking trust with 'leaps of faith' or 'blending ignorance and knowledge'. Whilst Luhmann acknowledges the unavoidable contingencies in the decision to trust, he shows how individuals and social systems limit the horizons of trust by reducing the complexity of 'their' worlds through the function of familiarity.

Whilst Giddens argues that society is constantly forced to anticipate outcomes and assess risk as a result of modernity and increased reflexivity, Luhmann also takes this approach to risk arguing that it is inherently linked to trust; in the absence of risk, there is no need to trust (Luhmann 1979). Risk must be assessed as part of the decision to trust or it is not trust but rather, confidence or expectation (Luhmann 1979). The awareness of risk is what moves an individual's decision from the assumption of confidence, to one where trust is required (Luhmann 1988).

We live in a world that is uncontrollably complex and people now have the ability to choose between very different courses of action. When these decisions are a matter of trust, more complex rationality is necessary to determine a given course of action (Luhmann 1979). The decision to (mis)trust functions as ways to pursue our interests more rationally. Trust is a gamble or risky investment (Luhmann 1979) and risk must be assessed as part of rational decision making.

Trust as a Function in (and for) Society

Since we have already covered issues of reflexive modernisation, we turn our attention here to Giddens' ideas about the function of trust in the structure-agency dialectic. Giddens argues that trust acts as a medium of interaction between modern society's systems and the representatives of those systems (Giddens 1991). The grounds for this interaction are referred to as access points; the meeting ground for what he terms 'faceless' and 'facework' commitments (Giddens 1990). Facework commitment is dependent on the demeanor of the 'expert' (in healthcare, the physician). Their level of professionalism, mannerisms, and other aspects of their personality impact our impression and expectation of them. Alternatively, faceless

commitment is the perceived legitimacy, technical competence and the ability of the 'expert system' (Giddens 1990). Giddens (1990) argues that trust is sustained through facework commitments.

"Although everyone is aware that the real repository of trust is in the abstract system, rather than the individuals who in specific contexts "represent" it, access points carry a reminder that it is the flesh-and blood people (who are potentially fallible) who are its operators"

In this way, Giddens argues that institutional trust presupposes and is determined by interpersonal trust.

For Luhmann, trust is vital in interpersonal relations but participation in functional systems like the political and economic system is no longer a matter of personal relations (Luhmann 1988). The relationship that we have with larger social systems (medical, judicial, government) requires our confidence but not our trust. As modern society increases in complexity (technology, communication, information, knowledge) systems which require more confidence as a prerequisite of participation have been generated (Luhmann 1988). Modern life depends on contingent and changeable structures (political government constantly implements changes that impact the entirety of the nation it governs). These systems are simply too complex to factor in all possible outcomes and expectations. There are many occasions in which we are unable to trust – unable to factor in all possible options and risks. We can only feel unhappy or complain about negative outcomes (Luhmann 1988). If we were to trust and attribute blame internally, we would constantly be disappointing ourselves.

For Luhmann, trust is seen as both an outcome of, and response to the increasing complexity in society. Individuals have come to depend on learning and confirming trusting relationships between the boundaries of internal systems and the external environment (Luhmann 1988). For instance, we can learn to trust a surgeon (who is part of an external system – the medical system) that we have never met, and do not know anything about in terms of demeanor or personality. However, as a patient we may have learned to trust between the boundaries of systems (trust between greater society and the medical system) and believe that both the health system and the medical professional (the surgeon) will operate in our best interest (Russell 2005). The differentiation of the approaches to (mis)trust (internal vs. external), is rational from the point of the system because it helps it to preserve the higher level

of inner order, in comparison to its environment. If we did not trust the surgeon but instead asked a neighbour who was a pilot (who we trusted) to do our surgery, complication and chaos would result and our action would not be rational. The inner order helps to stabilize an extremely complex environment by organizing a less complex system-order that is better suited to human capacities for action (Luhmann 1979). Put simply, an individual must have *confidence*, rather than trust, in order to participate in society because modernity has created contingent and changeable structures which are too complex for an individual to consider all possible options and risks involved in trusting. However, individuals may learn to trust individual systems, simplifying their decision to trust in other systems (and their representatives) that mutually interact with and are influenced by the trusted system.

Towards a combined theory: Towards a more comprehensive social theory of trust

Giddens and Luhmann have both been influential in the pursuit of understanding trust within and between social systems. They have both made significant contributions to understanding the complexity of the (mis)trusting relationships that exist between and within different social groups, systems, levels, and relationships. However, neither Giddens nor Luhmann on their own provide the *complete* picture of how and why trust is (re)built and sustained in society (Meyer, Ward et al. 2008). The following critiques aim to identify the gaps in Giddens' and Luhmann's work in order to provide contemporary theoretical perspectives for future empirical research that investigates how trust plays out in the real world. The idea of developing a more comprehensive social theory of trust is not to refute or dismantle the theories of Giddens and Luhmann but instead, to move towards a more complete social theory of trust that can be directly applied to understanding and evaluating the function of trust within and between social systems (Meyer, Ward et al. 2008).

In order to fully understand the function of trust within society, it is essential to address the role played by both interpersonal and institutional trust. While Giddens maintains that an individual must have interpersonal trust before there is any potential for institutional trust, Luhmann argues the reverse; that trust in the system in necessary before an individual can have trust in the system's representative. It is interesting that Giddens makes the claim of a uni-directional trusting relationship, given his focus on the structure-agency dialectic, which would suggest a bi-directional relationship whereby trust in the individual affects trust in the system,

while at the same time that trust in the system affects trust in the individual. Nevertheless, both theories construct trusting relationships as being linear and they ignore the web of interactive relationship which influences individual trust (Meyer, Ward et al. 2008). “Rather than linear, trusting relationships should be understood as a complex web of interaction” (Meyer, Ward et al. 2008:182). Indeed Lewis and Weigert (1985:974) argue that “an adequate sociological theory of trust must offer a conceptualisation of trust that bridges the interpersonal and systematic levels of analysis, rather than dividing them into separate domains”.

We put forward that the relationship between interpersonal and institutional trust is multi-dimensional rather than linear. If trust is understood to be initiated by the interpersonal relationships or the relationships that exist within and between social systems, trust on all levels needs to be addressed when determining how (mis)trust is operationalised in society.

Both Luhmann and Giddens address trust in situations where there is a shortfall of information. As discussed earlier, for Giddens, the shortfall is compensated for by a leap of faith which can be understood as an act of knowing or sensing without the use of rational processes. For Luhmann, trust is a product of available evidence. When the available evidence is not sufficient, risks are weighted against the potential positive outcomes; where the available information is not adequate to make a rational decision, Luhmann argues that individuals weigh the risk involved in their decision to trust against the potential positive outcomes that result when trust is ensued. While we do recognise that trust does indeed require that the gap between knowledge and ignorance be fulfilled, neither Giddens nor Luhmann provide a complete explanation of this ‘gap’. Luhmann acknowledges that trust relies on some form of illusion (or ‘operation of will’) necessary to overcome a shortfall of information. However, nowhere does he further discuss *why* individuals trust when knowledge, evidence, and the weighing of risks is not enough to justify trusting; his explanation of this remains fairly abstract. The theoretical expansion outlined in this paper is an initial step to providing a framework that may be employed in future empirical work which may shed light into whether we can ever really understand *why* people trust.

Luhmann also argues that trust is only possible in a situation where the negative outcomes may be greater than the positives that successful trust awards (Luhmann 1988). The problem with this statement is that the decision to trust is not weighted

equally by all. The perception of the associated risks and benefits in trusting differ. Although it is difficult to gauge and predict how people weigh the risks and benefits associated with their health, knowing that people do weigh risks differently is an important addition to a more comprehensive social theory of trust.

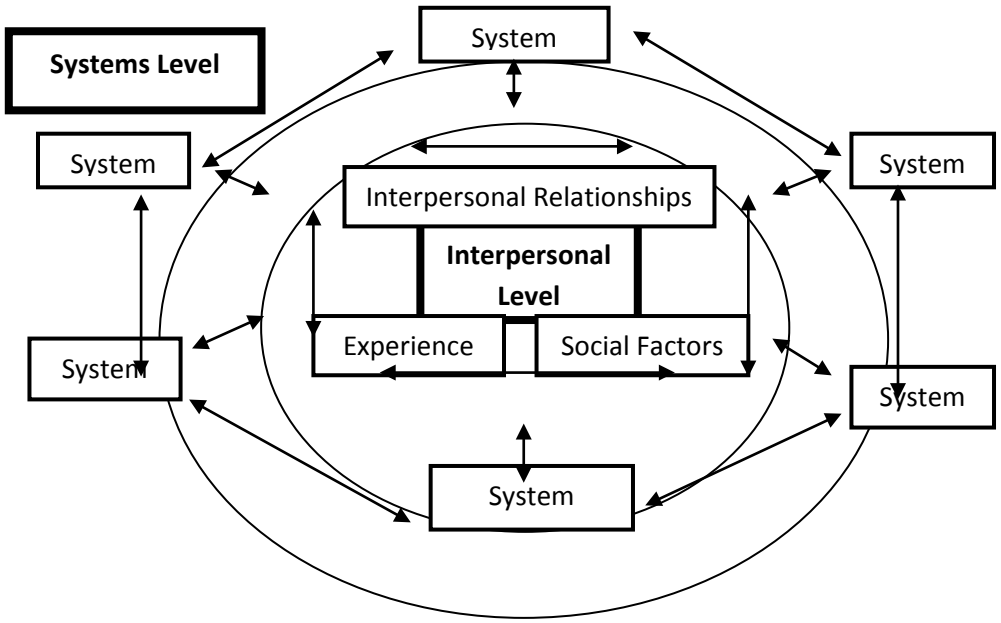
Luhmann (1988) argues that if an individual chooses to trust and then their trust is betrayed, they will attribute blame internally because they made the error in trusting. If placing trust means accepting the blame for any betrayal of trust, the responsibility of the individual being trusted is removed. Say for instance that we when boarding a plane we place trust that it will not crash. Luhmann would argue that if the engine on the plane fails we would attribute the blame internally. However, if we blame ourselves for the engine malfunctioning, where does the responsibility of the mechanics, engineers or airline lie? Luhmann's argument suggests that the trusting individual is the sole bearer of blame, however this theory removes the responsibility of those whom individuals place trust in to perform their role in society (Parsons and Turner 1991); potentially removing one of the reasons for the trusted to satisfy their role.

One final critique deals with Giddens' (1991) argument that in modernity, 'society is continually drawn to the present through reflexive organization and is constantly forced to anticipate outcomes and predict how things are likely to diverge'. However, the practical application of this theory is problematic. As discussed in Meyer and Ward et al. (2008), Giddens' argument that modern individuals are reflexive agents for who trust in modern individuals and institutional must be worked on and won is flawed. There are a number of factors that Giddens fails to successful address in when arguing that *all* modern individuals make the reflexive choice to trust. Ward (2006) discusses 'stratified' reflexivity' which suggests that reflexivity does not transcend the inequalities or differences created by social stratification such as gender, age, social class, ethnicity, nationality and so on. Giddens does address increasing societal complexity as a result of modernity but he fails to address the interdependence it creates; in situations where there is a lack of information, the vested interests of the dependent individual are vulnerable to other actions and in turn, an individual's 'decision' to trust may not be the result of reflexive decision making but rather their dependence on an individual or institution. Similar to Ward's discussion of 'stratified reflexivity', Elliot (2002) discusses the gap between the 'information rich' and the 'information poor'. Rather than making a reflexive choice to trust, he argues that the information poor cannot utilize all available resources for

decision making due to a lack of information and access to forms of information (i.e. internet, newspapers, formal education) (Elliot 2002).

The above critiques have led us to construct a more comprehensive and contemporary social theory of trust that may be used to frame empirical trust research. We hope it may potentially lead to solutions for (re)building and sustaining trust within and between social systems where mistrust is prevalent. We suggest that trust is conceptualised as the result of a 'web' of interactive relationships that exist between and within social systems. The suggested model depicted in figure 1 is a combination of both Giddens and Luhmann's social theories of trust.

Figure 1: Interactive web – a more comprehensive social theory of trust



origin of (mis)trust (both at a systems level and an interpersonal level) as well as the multidirectional relationships that exist between and within social systems. Secondly, we also address factors that may affect an individual's ability to act as a reflexive agent. We suggest that both experience and social characteristics (age, gender, race etc.) play a role in an individual's decision to trust. By acknowledging that experience and social characteristics have the potential to affect trust, we also address the critique presented earlier that Luhmann and Giddens fail to adequately describe the 'gap' or suspension (Mollering 2001) that moves an individual from partial knowledge to trust; the experience and rationality that reinforces the 'leap' varies considerably (Lewis and Weigert 1985).

In conclusion, this paper has provided an overview of both Giddens' and Luhmann's social theories of trust while also highlighting the gaps in their theories. We provide a more comprehensive social theory of trust that may be used in future research on trust. Social theory is beneficial to understanding how, where, and why trust functions in and for society. This paper is an effort towards identifying the gaps that continue to exist in contemporary Western social theories. We hope that our analysis provides a theoretically grounded starting point for Asian scholars wishing to further research in the sociology of trust within, between, and across Asian societies.

References

Andreassen, H. K., M. P. E. Trondsen, et al. (2006). "Patients Who Use E-Mediated Communication With Their Doctor: New Constructions of Trust in the Patient-Doctor Relationship." Qualitative Health Research 16(2): 238-248.

Beck, U., A. Giddens, et al. (1994). Reflexive Modernization. Politics, Tradition and Aesthetics in the Modern Social Order. Cambridge, Polity Press.

Borch, C. (2005). "Systemic Power: Luhmann, Foucault, and Analytics of Power." Acta Sociologica 48(2): 155-166.

Bordum, A. (2004). Trust as a Critical Concept. Working Draft. Copenhagen, Center of Market Economics Copenhagen Business School.

Bordum, A. (2005). Trust and Leadership on The Value Laden Concept of Trust. Working Draft. Copenhagen, Center of Market Economic Copenhagen Business School.

Brown, P. R. (2008). "Trusting in the New NHS: instrumental versus communicative action." Sociology of Health & Illness 30(3).

Brownlie, J. and A. Howson (2005). "'Leaps of Faith' and MMR: An empirical Study of Trust." Sociology 39(2): 221-239.

Crawford, R. (2004). "Risk ritual and the management of control and anxiety in medical culture." Health, An Interdisciplinary Journal for the Social Study of Health, Illness and Medicine 8(4): 505-528.

Elliot, A. (2002). "Beck's Sociology of Risk: A Critical Assessment." Sociology 36(2): 293-315.

Fukuyama, F. (1996). Trust: the Social Virtues and Creation of Prosperity. London, Free Press.

Giddens, A. (1986). The Constitution of Society: Outline of the Theory of Structuration. California, University of California Press.

Giddens, A. (1990). The Consequences of Modernity. Stanford, Stanford University Press.

Giddens, A. (1991). Modernity and Self-Identity: Self and Society in the Late Modern Age. Stanford, Stanford University Press.

Gilson, L. (2003). "Trust and the development of health care as a social institution." Social Science and Medicine 56(7): 1453-1468.

Hardin, R. (2006). Trust. Cambridge, Polity Press.

Lewis, D. J. and A. Weigert (1985). "Trust as a Social Reality." Social Forces 63(4): 967-985.

Luhmann, N. (1979). Trust and Power: Two works by Niklas Luhmann. Brisbane, John Wiley and Sons.

Luhmann, N. (1988). Trust: Making and Breaking Cooperative Relations Familiarity, Confidence, Trust: Problems and Alternatives. D. Gambetta. New York, NY, Basil Blackwell: 94-107.

Luhmann, N. (1997). "Globalization or World Society: How to Conceive of Modern Society." International Review of Sociology 7(1): 67.

Luhmann, N. (2005). Risk: A Sociological Theory. New Brunswick, New Jersey, Transaction Publishers.

Lupton, D. (1997). "Consumerism, Reflexivity and the Medical Encounter." Social Science and Medicine 45(3): 373-381.

Mechanic, D. and S. Meyer (2000). "Concepts of trust among patients with serious illness." Social Science and Medicine 51(5): 657-668.

Meyer, S. and P. Ward (2008a). The Place of 'trust' within the Theory of Social Quality: a Sociological Exegesis. International Nanjing Conference of Social Quality and Social Welfare: "Social Quality in Asia and Europe: Searching for the Ways to Promote Social Cohesion and Social Empowerment". Nanjing China.

Meyer, S., P. Ward, et al. (2008). "Trust in the health system: an analysis and extension of the social theories of Giddens and Luhmann." Health Sociology Review 17(2): 177-186.

Meyer, S. B. and P. R. Ward (2008b). "Do your patients trust you?: a sociological understanding of the implications of patient mistrust in healthcare professionals." Australasian Medical Journal 1.

Mollering, G. (2001). "The Nature of Trust: From Georg Simmel to a Theory of Expectation, Interpretation and Suspension." Sociology 35(2): 403-420.

Ortmann, G. and H. Salzman (2002). "Stumbling Giants: The Emptiness, Fullness, and Recursiveness of Strategic Management." Soziale Systeme 8.

Parsons, T. (1951). The social system. Glencoe, Ill., Free Press.

Parsons, T. and B. S. Turner (1991). The Social System. London, Routledge.

Pearson, S., S. Crane, et al. (2005). Persistent and Dynamic Trust: Analysis of Trust Properties and Related Impact of Trusted Platforms. Trust Management. L. P. Hewlett-Packard Development Company. Bristol, Springer Berlin: 355-363.

Russell, S. (2005). "Treatment-seeking behaviour in urban Sri Lanka: Trusting the state, trusting private providers." Social Science and Medicine 61(7): 1396-1407.

Salvatore, A. and R. Sassatelli (2004). Trust and Food: A theoretical discussion. Consumer Trust in Food - A European Study of the Social and Institutional Conditions for the Production of Trust. Bologna, University of Bologna.

Stehr, N. and G. Bechmann (2005). Introduction to the AldineTransaction Edition Risk: A sociological theory. London, Transaction Publishers.

Thiede, M. (2005). "Information and access to health care: is there a role for trust." Social Science and Medicine 61: 1452-1462.

Ward, P. (2006). "Trust, Reflexivity and Dependence: A 'Social Systems Theory' Analysis in/of Medicine." European Journal of Social Quality 6(2): 121-133.

Ward, P. and A. Coates (2006). ""We shed tears, but there is no one there to wipe them up for us": narratives of (mis)trust in a materially deprived community." Health: an Interdisciplinary Journal for the Social Study of Health, Medicine and Illness 10(3): 283-301.

Analysing the social quality of life in Australia: results from a national survey

Ward, P. R., F. Verity, T. Gill, C. N. Luong and S. B. Meyer (2010). Analysing the social quality of life in Australia: results from a national survey. Social Quality in East Asia, Japan.

Paul R Ward

Professor of Public Health

Discipline of Public Health

Flinders University, Adelaide

e-mail: paul.ward@flinders.edu.au

Fiona Verity

Associate Professor of Social Work and Social Policy

School of Social Work and Social Policy

Flinders University, Adelaide

e-mail: Fiona.verity@flinders.edu.au

Tiffany Gill

Senior Epidemiologist

Population Research & Outcome Studies, SA Health, Government of South Australia

tiffany.gill@health.sa.gov.au

Tini C N Luong

Honours Candidate

Discipline of Public Health

Flinders University, Adelaide

e-mail: luon0010@flinders.edu.au

Samantha B Meyer

PhD Candidate

Discipline of Public Health

Flinders University, Adelaide

e-mail: samantha.meyer@flinders.edu.au

Introduction

"I love a sunburnt country,
A land of sweeping plains,
Of ragged mountain ranges,
Of droughts and flooding rains.
I love her far horizons,
I love her jewel-sea,
Her beauty and her terror -
The wide brown land for me!" (Dorothea MacKellar)

Dorothea MacKellar in her classic and evocative poem published in 1908 describes her emotional connection to a vast and diverse Australia; a land occupied that covers 7.62 million square kilometres. Her poem captures an imagination that foregrounds divergence in topography and environment. A hundred years on and with a population in 2010 of 22 million there is now striking divergence in the material and social health circumstances of Australia's people, despite the fact that relatively speaking, and measured through aggregate normative economic indicators, Australia is a wealthy country. Yet the unequal distribution of income and wealth, statistics revealing health inequities and spatial polarization are evidence of a society where its inhabitants are 'growing apart' (Harding, 2004), or in the words of Gleeson indicative of 'a society dividing' (Gleeson, 2004:3). Nowhere is this more pronounced than in the circumstances for Indigenous Australians.

In social policy terms the Commonwealth of Australian States and Territories is a 'welfare state'. There is state funds and provision to social welfare delivered by a mix of levels of government, families and individuals and not for profit organisations. Intentionally social policy can seek to ensure services are available to meet social needs and change environments for social wellbeing, however these are deeply ideological matters and in the Australian context what and how this is best done has been vigorously contested (Jamrozik, 2005:5, Bryson and Verity, 2009; McClelland,2006). In recent history Australia's social policy apparatus has been dominated by values and beliefs of self-responsibility and reduced direct government provision, and whilst across jurisdictions and functional areas the policy processes and outputs have varied, there has been a common discernable ideological agenda. Bryson and Verity call this a 'radical neo-liberal economic turn of social policy' (2009: 67).

Castles (1985) describes the early 20th century version of the Australian welfare state a 'Wage-Earners Welfare State'; public policy from Federation in 1901 aimed to ensure the economic and labour conditions and population controls were in place for employment and income levels adequate to maintain a standard of living. For example policy measures to maintain tariffs and government wage regulation (Bryson and Verity, 2009). These policy devices were complemented by state means tested benefits such as the provision of age and invalid pensions. This policy configuration was in contrast to northern hemisphere welfare regimes marked by state comprehensive welfare provision or universal social insurance schemes. Given the historic form of an Australian 'wage earners welfare state' the 21st century changes in the global economy and transformation in the nature of work are significant. In the Australian context the services sector is a major employer with a decline in the importance of the manufacturing sector. The growth in part time, casual and contract work are also significant features of the current work place landscape (Martin and Pixley, 2005: 51), as is the gendered condition of employment.

Since the late 1970s the tenor of the Australian welfare regime has largely been towards a greater and unambiguous embrace and uptake of neo-liberal social policies. This is accord with developments in other OECD countries. Some writers call the current Australian form of the welfare state a 'neo-liberal welfare state' (Bryson and Verity, 2009). In general terms this means an economy and welfare system explicitly modelled on market values and practices, both in how the welfare system is organised and services delivered (i.e. outsourcing and privatisation), and in the emphasis on supporting the private provision (including family and the individual) and private consumption of welfare services. For example there have been policy initiatives by the federal government linking receipt of some social welfare income (i.e. unemployment benefits) to activity for work under the banner of a "Welfare to Work" reform, and fiscal and social welfare benefits to support people purchase social welfare services in the private market. An example of the latter is a government rebate to purchase private health insurance and an additional Medicare charge for high income earners who do not take out private health insurance.

This market emphasis is not altogether new, as Australia always had market involvement in providing for aspects of social welfare. For instance there has been historically high private property ownership, and people have aspired to own their

own homes. In social policy terms this has been viewed as foundational to income support policies. This is changing and with the withdrawal of funds for the public housing sector, coupled with issues of housing affordability is a major social issue. In concert public policy is designed to maximise economic growth and capitalist investment. Consistent with communitarian trends elsewhere across the world community capacity building increasingly is part of policy and program language in health and other functional areas (i.e. social welfare, family and community services, education, environment, local government, social and urban planning) (Hounslow, 2002). This is evident in Australian governmental initiatives that either directly or indirectly aim to finance or facilitate community capacity building.

These policy shifts are generating a social welfare system comprised of many parts where services and programs are provided now by different levels of government and through a maze of non-government, or not for profit services. The Australian not-for-profit sector was estimated at the end of June 2007 to comprise 58,779 organisations that, together, employ almost 900,000 people (ABS, 2009). The voluntary workforce is substantial and national statistics show this to be in the realm of four and a half million people (ABS, 2009). Consistent with public policy shifts to outsourcing, the greatest proportion of income to not-for–profits comes from government funds (ABS, 2009).

Aims of the paper

This paper presents an analysis of the social quality of life in Australia, within the backdrop of the social policy and social conditions outlined above. The main aims of the paper are to outline the development of the SQ questionnaire, in addition to assessing its validity and reliability within an Australian context. We then present findings on the nature and extent of SQ within Australia, focussing on the key conditional factors within the SQ theory.

Understanding and alleviating social and health inequities require quantitative evidence to supporting evidence in terms of its measurability the validity of the determinations made. As yet, no empirical testing has yet been conducted in this area of research in Australia. Therefore, the timely development of a valid and reliable tool for the operationalisation of SQ theory is essential for the understanding the inequities present in society. SQ theory broadens the scope of social such investigation and is significant to the advancement of the theory into the realm of practice is greatly significant to the field of social research as a whole.

The empirical testing of SQ theory enables the determination of a level of social quality of life in the targeted society. In the Australian context, the conduct of a survey aims for the practical application of SQ theory.

Methods

Overall, there were three main research stages within this study: Pre-Pilot; Pilot Test; and, the Full Survey. Firstly, pre-pilot test was undertaken to assess the validity of the measuring instrument used for the research- the questionnaire. Face validity was obtained by asking 33 participants recruited by convenient sampling, to offer feedback about their experience of answering the questionnaire. Secondly, a pilot test was conducted to assess the reliability of the questionnaire. This was achieved by conducting a test-retest reliability test where analyses were carried out statistically. Lastly, the full survey was carried out once the pre-pilot and pilot test qualified the questionnaire to be sufficiently valid and reliable, respectively.

The Pre-Pilot Test - Assessing the validity of the questionnaire

Face validity may be defined as having 'experts' review the contents of the instrument being used for measurement to ensure that is relevant and useful (Reber 1985). Therefore, in this case the participants' feedback may be taken to be the expert opinions that are used as face validity to verify the researchers' assessment. Thus, face validity was obtained by asking some of the participants for feedback. Feedback from both the research team and the pilot test participants was then taken into consideration to address the relevance of the questions and to make appropriate amendments to a few of the questions and/or question items prior to the statistical analysis of the pilot study.

Questions from pre-validated questionnaires, including the World Values Survey and the General Social Survey, were also employed in the SQ survey since they had previously been validated (National Opinion Research Centre (NORC), 2006; World Values Survey Association, 2005/2006). Initially, the survey consisted of 58 questions that were predominantly constituted by nominal and ordinal levels of measurement. Although the SQ survey up until this point had been comprehensively developed and validated, in particular, has face, content, and construct validity (Bowling & Ebrahim 2005), the need to ensure that the Australian research team had constructed a valid set of questions needed to be verified.

The questions used in the pilot test were developed by the Asia-Pacific Scientific Steering Group on Social Quality- Seoul National University led the process. The questionnaire itself was developed from the Social Quality Indicators developed by the ENISQ. All of the questions used in the questionnaire were either demographically relevant or related to any one of the four conditional factors of social quality (socio-economic security, social inclusion, social cohesion and social empowerment). Questions not pertaining to this research paper were also included in the 'Trust Module', although those results are not be discussed within the scope of this paper.

The initial stages of validity checking involved collaborative efforts with the Korean team from Seoul National University. The Australian research team, consisted of two associate professors, both with research and teaching experience in designing questionnaires and, also, in reviewing drafts of the SQ questionnaire; a PhD student; and, an honours student. Numerous and extensive discussions between the members of the Australian team provided feedback to the Korean team who were leading the process. Revision and modification of the questionnaire lasted for approximately three months before the final revised questionnaire was agreed upon between all international teams. This process was finalised in July 2009 and the final version of the questionnaire was officially distributed from the Seoul research team in August of this year.

Further amendments were made after receiving the final revised questionnaire from the Korean research team. Extensive meetings were carried out to meticulously discuss the cultural relevance, question by question. To check the validity of the amended 'Australian version' of the questionnaire, 33 participants were asked to answer the survey and provide feedback about their experience of answering the questionnaire.

The SQ pilot test (Test-Retest) was conducted on 33 participants (18 males and 15 females aged between 19 and 63) residing in metropolitan Adelaide who were recruited by convenient sampling. Changes to the questionnaire were made prior to statistical testing as part of face-validity testing. Rewording, adding in additional question items for extra response options were made. Eliminating questions or question items were made after statistically analysing the data (test-retest and inter-

item reliability test) in order to improve the overall reliability and consistency of the results. On a few occasions, it was perceptible that the respondent unintentionally missed the question or even the random item of a question, while other times, it was obvious that certain questions were left partially blank. When this occurred commonly across some of the respondents and a general trend arose. Therefore, a safe judgement was made when we assumed that the question evoked confusion, dislike or ambiguity. In the event where a question was unclear, the question was reconceptualised or simply reworded. For example, a notable problem that was mentioned by a number of the respondents involved in the pilot test found that the term 'immediate family' in a question was rather elusive. This is because they considered extended families whom of which they have close relationships and live in the same household with are considered as 'immediate family' members. To some individuals, this may in fact include live-in relatives such as grandparents, in-laws, siblings, etc. This confusion was anticipated before the pilot test was conducted.

The pilot test respondents' feedback thus confirmed the problem and was taken into account when inputting and analysing the patterns of the data for the affected questions. This in turn aided a clearer judgment on how respondents for the actual population to be tested may react and interpret to the wording of that question. Moreover, they also questioned whether they should interpret 'you' as simply between themselves as the singular addressee where the questionnaire is only referring to the respondent answering the questionnaire, or plural, where the questionnaire is referring to all household members applicable.

In instances where it appeared to be that the majority of pilot study participants did not 'like' the question (this statement being supported by numerous direct feedback from the respondents), the question was deleted. This, however, only applied with statistical evidence, that is, if the corresponding test-retest and reliability rating was poor (≤ 0.7). Other difficulties that this study faces in terms of validity was the unfeasibility of verifying individual survey responses because of the anonymous nature in terms of not being able to identify participating responses. Due to the time limit, budget and ethical limitations of this project, check ups, even on a small scale, was not possible. Also, another internal inconsistency affecting validity of the questionnaire is the difficulty in verifying whether the responses from the individuals completing the survey did so independently or with the participation or input with one or more members from their household. In hindsight, perhaps an improvement that

could be made to help determine this is to include another question in the survey asking the respondent to clarify whether the survey was completed individually or not.

The Pilot Test - Assessing the test-retest and inter-item reliability 0f the questionnaire.

Accuracy and consistency are vital to the construction of effective measures and indicators. Thus, other than validity, reliability constitutes the other core research method concepts (Nardi 2003) and needs to be applied to properly operationalise TSQ through statistical testing of variables. Thus, the main rationale for conducting the pilot test using the sample of 33 participants (of convenient sampling) was to assist in highlighting problem questions that the research team may not have recognised or noticed prior to editing and modifying the extensive questionnaire (pp.352 Presser & Blair 1994). Moreover, testing the questionnaire on a small sample before applying the survey to the full national survey helps to assess and reduce response burden (Dyrberg 2006). Response burden is usually quantified in terms of how long and how much effort it takes the respondent to fill out a survey, and can also be considered in context of how difficult or sensitive the questions in the survey are to respond to (Statistics New Zealand 2009). Thus, cooperation from the participants helped to facilitate the development of questions that were useful and comprehensible and, thus, filled out correctly; gauging of the likeliness of survey completion and return; and, as previously mention, the reduction of response burden (Dyrberg 2006).

It was recognised that questions should be selected in accordance with their relevance to and ability to be comprehended by the general Australian population. Also, it identified questions that should be eliminated since they incurred low and/or inconsistent response rates. It had been initially discussed by the research (prior to the statistical analyses of the pilot test) that there were numerous questions that were not culturally relevant considering the cultural context in which the extensive questionnaire had been developed. This was verified to be the case through the findings of the pilot test and further modifications were incorporated.

The test-retest was conducted to test the reproducibility of the responses to the measures of the questionnaire (Bowling, 2009). The more stable the level of consistent responses received between the first and second test, the more reliable the measure (Bowling, 2009). Inter-item reliability testing was also employed to

enhance credibility. The analyses predominantly employed reliability testing using the Statistics Package for the Social Sciences (SPSS).

The test re-test applied Cohen's (1968 as cited in Bowling 2009 p. 163) kappa coefficient to test nominal data, weighted kappa for ordinal data and Spearman's correlations for interval-level data. According to Fleiss (1981 as cited in Bowling 2009), a kappa result of 0.60-0.74 is good agreement and above this range is therefore is excellent. The coefficient acceptable for this research's test re-test was ≤ 0.70. Cronbach $\propto$ was applied for the inter-item reliability test and was also assigned with the acceptable coefficient value of ≤ 0.70. Statistical significance were measured by ensuring $p > 0.05$ and N=10-33 for any of the questionnaire items for both test-retest and inter-item reliability test. Questionnaire items were also removed if the response rates were too low ($\leq 33\%$).

To prevent reduced reliability of the pre-test, respondents were unaware that they were to be asked to complete the questionnaire a second time. Thus, the replication of the second round of surveys minimised the chances of the respondents relying on memory-recall when answering the question. However, requesting them to complete the questionnaire the second time often required further justification of the purpose of the pilot test to encourage respondents' willingness to respond.

An inter-item reliability test was also applied to assess the level of homogeneity of the questions as well as to check that the questions are exclusive to the one of the four social quality domains being measured (Bowling, 2009). The statistical methods used for this inter-item reliability test was Cronbach $\propto$ (Cronbach, 1951 as cited in Bowling 2009, p. 163). Cronbach's $\propto$ estimates the level of reliability between all the possible correlations between all the items within the scale and thus estimates internal consistency (Bowling 2009, p. 164). Since Cronbach's $\propto$ is dependent on both the number of items in the scale and the magnitude of correlations between items, if alpha is high, so is the number of scale items. Thus, alpha at a high level will implicate a likelihood of item redundancy (Bowling 2009, p.164). A reliability coefficient of ≤ 0.70 was used for our analysis, meaning that at least 70 per cent of the measured variance should be reliable and 30 per cent leeway for random error. Items that resulted with a value less than 0.70 were eliminated as an alpha coefficient less than this indicates that the item is not suitable for the domain (Bowling 2009, p.165). Both the test re-test and inter-item reliability test also had to

have a significant level of $p \leq 0.05$. After testing for reliability, several questions and number of question items were removed from the survey due to low statistical significance.

The Full Survey

Survey research is the most common method for obtaining primary data. Moreover, surveys are often conducted due to their relative ease, efficiency, and accuracy in terms of acquiring information from the intended audience (Alreck & Settle 2004). Thus, taking into consideration the empirical nature of this study, survey research is the most suitable option. Moreover, surveys allow the social quality questions that aim to measure specific aspects of social quality to be intricately tailored so as to capture data that would be more effective for analysis. Like all other survey methods, such as telephone surveys and interviews, surveys have their limitations. However, a mail survey was chosen over the other possible methods because of its efficiency in terms of budget and also because of timing requirements. Telephone surveys or interviews require contact with respondents, which, for a study requiring national sample, would require an exorbitant amount of financial resources. Moreover, to obtain data that would cover as many areas of the national population as possible, mail surveys seem to be the more appropriate method as private telephone numbers would not be listed and, thus, available for research. Nevertheless, data collection time required is high compared to telephone and personal interview, as responses received are dependent on action initiated by the respondents. However, surveys do not have any degree of interviewer bias (Alreck & Settle 2004).

A postal questionnaire survey of a random sample of Australian households was undertaken. More specifically, stratified sampling was employed. This was because it was necessary to divide the national population into strata (Alreck & Settle 2004). Since this study was sampling a national sample, the data was stratified on the basis of states and territories. Therefore, more surveys were sent out to areas/states with higher population numbers, such as Sydney and Melbourne. The sampling frame was the electronic white pages, which contains postal addresses for all households with a landline telephone. Therefore, a small proportion of households who either do not have a telephone or are privately listed were excluded. However, this possible limitation is outweighed by the fact that the electronic white pages is one of the only representative sources from which a national random sample of postal addresses can be generated. Access to the electronic white pages was

facilitated by the Population Research and Outcomes Studies unit at SA Health Department, who undertake numerous population based studies, such as the study undertaken for this thesis.

A copy of the questionnaire, a letter of information, a letter of introduction, and a stamped return envelope was sent to each mail-out address. A postcard reminder was only sent out to those who had not returned the questionnaire after two weeks. This was aided by the small code numbers previously printed on each return envelope prior to the mail out. The codes corresponded to the addresses, and thus, it was possible for us to identify which addresses had or had not returned the surveys.

Given that the expected response rate was 20% (based on the research experience of the research team), in order to obtain a final sample size of 1000, it was estimated that an initial sample of 5000 addresses was required. Out of the 5000 surveys that were sent out, 930 was returned due to invalid addresses. 1044 were returned surveys. This means that the response rate (which does not include the invalid addresses/return to sender surveys) was approximately 25%; higher than the initial expected response rate. The surveys were sent out in early September 2009 and respondents were given about a week turn around time before reminder postcards were sent out.

Data Analysis

Data were analysed using SPSS. In addition to the variables from the survey, an extra two variables were created from the postcode of the respondent. Both variables are derived from the national census. The first variable is called the Socio-Economic Indicator For Areas (or SEIFA) and provides a score for the level of socio-economic deprivation or affluence of the area. The second variable is called Accessibility and Remoteness Indicator for Areas (or ARIA) which provides a score for the distance of the postcode from major service centres. Both of these variables were thought to be potentially important when analysing differences in social quality.

Initially, descriptive analyses were undertaken in order to clean the data and explore overall levels of social quality. We then performed univariate logistic regression analyses in order to explore simple associations between a range of socio-demographic variables and the indicators of social quality. Any univariate odds

ratios with p<0.25 were then included in multivariate logistic regression analyses. All models were checked for collinearity and goodness of fit.

Within the paper, 2 separate multivariate regression models are presented: the first model includes the SQ variable (social inclusion, social cohesion etc) as the dependent variable with the socio-demographic variables (sex, age, income etc) as independent variables. The second model includes the same SQ variable, but this time the independent variables include both the socio-demographic plus the other SQ variables.

Findings

In total, we received 1044 responses to the survey. This section of the paper provides statistical description and analysis of the data, focussing specifically on the four conditional factors within the SQ architecture, namely socio-economic security, social cohesion, social inclusion and social empowerment.

Socio-economic security

There were a number of variables that related to socio-economic security within the dataset, but for the purpose of this paper, we have just used two variables. The variables are outlined below:

1. During the past year, did you
Save money
Just get by
Spent some savings
Spent savings and borrowed money

2. Please indicate whether your or your family have experienced any of the following in the last 12 months?
Costly medical expenses
Job loss or business bankruptcy
Job insecurity
Work injury
Becoming a victim of crime
Investment loss

In terms of saving or spending money, Table 1 shows a description of the dataset. Overall, over two thirds of the sample managed to save money or 'just get by', with only one third having to spend savings and/or borrow money. The variable was then recoded into two categories, those that just get by or better (68.7%) and those that spend savings or spend and borrow money (31.3%). Univariate odds ratios then examined the relationship between those who spent savings or spent and borrowed money and demographic characteristics (age, sex, marital status, work status, income, SEIFA and ARIA), and those with $p<0.25$ were entered into a multivariate analysis (see Table 1). As can be seen in Table 1, the only variable left in the model was 'employment status', with retired people being twice as likely than people working to have spent money rather than saved. This highlights the reduced socio-economic security of retired people compared to those working.

Table 1: Multivariate odds ratios of demographic factors associated with those who spent money

	OR	**p value**
Employment status		
Work full time or self employed	1.00	
Work part time	1.19 (0.78-1.80)	0.426
Work without pay, unemployed, student, disability, other	1.58 (0.98-2.55)	0.063
Retired	2.19 (1.58-3.03)	**< 0.001**
Household duties	1.39 (0.73-2.67)	0.321

When we added the other SQ variables as additional independent variables within the model, and the resulting model is shown in Table 2. Table 2 shows that those who spent money were more likely to be married or de facto, earn less than $45,000 be a member of at least one organisation and have experienced at least one form of discrimination.

Table 2: Multivariate odds ratios of factors associated with those who spent money

	OR	p value
Marital status		
Never married	1.00	
Separated/divorced	1.32 (0.67-2.63)	0.417
Married/defacto	2.20 (1.24-3.92)	**0.007**
Widowed	1.26 (0.58-2.76)	0.555
Income (financial year)		
$105,000-$150,000+	1.00	
$45,000-$104,999	1.28 (0.87-1.89)	0.215
$0-$44,999	2.17 (1.46-3.22)	**<0.001**
Membership		
Not a member	1.00	
Member of at least one organisation	1.52 (1.08-2.13)	**0.015**
Discrimination		
No discrimination	1.00	
Experienced at least one form of discrimination	1.57 (1.12-2.21)	**0.009**

Model stable, Hosmer and Lemeshow, Chi square 4.12, p = 0.661

In terms of the question relating to family experiences of a variety of negative or costly events, 31% had experienced costly medical experiences, 10% had experienced job loss or bankruptcy, 14% had experienced job insecurity, 6.5% had experienced work injury, 6% had been a victim of crime, and 50% had experienced investment loss. Overall, there was a fairly low level of experiences of these negative life events, although costly medical expenses and investment loss were experienced by larger proportions of the population.

The variable was then recoded into two categories, those that had experienced at least one of these events (71.7%) and those who had not experienced any (28.3%). The multivariate odds ratios are in Table 3. The main points to take from Table 3 are the higher levels of negative life events for people aged 55-64 (OR 2.4) and 65-74 (OR 3.5), and lower for retired people (OR 0.6) (the model was checked for collinearity given that these two variables could have been measuring the same factor – age).

Table 3: Multivariate odds ratios of demographic factors associated with those who experienced at least one negative life event

	OR	p value
Age		
18-34 years	1.00	
35-44 years	1.06 (0.60-1.87)	0.844
45-54 years	1.67 (0.97-2.86)	0.064
55-64 years	2.41 (1.34-4.32)	**0.003**
65-74 years	3.55 (1.72-7.34)	**0.001**
75 years and over	1.55 (0.71-3.38)	0.273
Employment status		
Work full time or self employed	1.00	
Work part time	1.18 (0.74-1.89)	0.478
Work without pay, unemployed, student, disability, other	1.33 (0.74-2.39)	0.342
Retired	0.57 (0.33-0.98)	**0.042**
Household duties	0.88 (0.45-1.73)	0.710

Model stable, Hosmer and Lemeshow, Chi square 8.19, p = 0.415

When we added the other SQ variables as additional independent variables within the model, and the resulting model is shown in Table 4. Table 4 shows that those who experienced a negative life event were more likely to be aged 55 to 74 years, and were less likely to earn less than $45,000, trust everyone completely or somewhat and have at least one positive view.

Table 4: Multivariate odds ratios of factors associated with those who experienced at least one event

	OR	p value
Age		
18-34 years	1.00	
35-44 years	1.06 (0.57-1.98)	0.847
45-54 years	1.81 (1.00-3.32)	0.051
55-64 years	2.19 (1.19-4.04)	**0.012**
65-74 years	2.53 (1.32-4.87)	**0.005**
75 years and over	1.02 (0.50-2.08)	0.948
Income (financial year)		
$105,000-$150,000+	1.00	
$45,000-$104,999	0.79 (0.51-1.24)	0.312
$0-$44,999	0.57 (0.35-0.91)	**0.018**
Trust		
Don't trust everyone completely or somewhat	1.00	
Trust everyone completely or somewhat	0.64 (0.43-0.96)	**0.032**
Positive views		
No positive views	1.00	
At least one positive view	0.19 (0.04-0.83)	**0.027**

Model stable, Hosmer and Lemeshow, Chi square 2.48, p = 0.963

Overall, the two variables used as proxies of socio-economic security suggest that, in general, there are fairly low levels of socio-economic insecurity in Australia, although there are some particular financial issues such as loss of investments and rising medical costs. These variables did not differ statistically by gender, marital status, SEIFA or ARIA scores, but did differ by age and for retired people.

Social Cohesion

The variables chosen for analysis relating to social cohesion were:

For each of the following organisations, please indicate your membership status
Church or religious organisation
Sport or recreational organisation
Art, music, educational, or cultural organisation

Other community based organisation

How much do you trust various groups of people?
Your family
Your neighbours
People you meet for the first time
Your regular doctor
Doctors in general
A doctor you are seeing for the first time
People of another religion
People of another nationality
National political leader
Your local politician
Police officers

In terms of membership of organisations, 26% were members of church organisations, 41% were members of sporting organisations, 22% were members of art/cultural organisations and 36% were members of community based organisations.

The variable was then recoded into two categories, those who were a member of at least one organisation (71.0%) and those who had not a member (29.0%). Univariate odds ratios then examined the relationship between those who were a member and demographic characteristics (age, sex, marital status, work status, income, SEIFA IRSD and ARIA), and the multivariate analysis is presented in Table 5.

Table 5: Multivariate odds ratios of demographic factors associated with those who were a member of an organisation

	OR	p value
Age		
18-34 years	1.00	
35-44 years	2.00 (1.11-3.62)	**0.022**
45-54 years	1.60 (0.94-2.72)	0.086
55-64 years	3.08 (1.72-5.53)	**<0.001**
65-74 years	4.90 (2.32-10.37)	**<0.001**
75 years and over	5.18 (2.09-12.82)	**<0.001**
Income (financial year)		
$105,000-$150,000+	1.00	
$45,000-$104,999	0.59 (0.39-0.88)	**0.011**
$0-$44,999	0.40 (0.25-0.64)	**<0.001**
Employment status		
Work full time or self employed	1.00	
Work part time	1.84 (1.14-2.97)	**0.013**
Work without pay, unemployed, student, disability, other	1.74 (0.96-3.17)	0.069
Retired	1.49 (0.82-2.71)	0.195
Household duties	1.51 (0.72-3.16)	0.278

Model stable, Hosmer and Lemeshow, Chi square 4.78, p = 0.783

Table 5 shows the increasing membership of organisations by age, with people aged over 75 being 5 times more likely to be members than people aged 18-34 years. Membership of organisations decreases with income, with people earning up to $45,000 being less than half as likely as those earning over $105,000. Also, people who work part-time are more likely to be members of organisations than people who work full-time.

When we added the other SQ variables as additional independent variables within the model, and the resulting model is shown in Table 6. Those who were a member of an organisation were more likely to be aged 55 years and over, spent savings or spend and borrow, trust groups of people, have undertaken a political action and were less likely to earn less than $45,000.

Table 6: Multivariate odds ratios of factors associated with those who were a member of an organisation

	OR	p value
Age		
18-34 years	1.00	
35-44 years	1.65 (0.89-3.09)	0.114
45-54 years	1.40 (0.79-2.48)	0.246
55-64 years	2.43 (1.33-4.44)	**0.004**
65-74 years	5.13 (2.54-10.35)	**<0.001**
75 years and over	5.87 (2.49-13.84)	**<0.001**
Income (financial year)		
$105,000-$150,000+	1.00	
$45,000-$104,999	0.66 (0.42-1.04)	0.071
$0-$44,999	0.46 (0.28-0.77)	**0.003**
Spent money		
None	1.00	
Spent savings or spend and borrow	1.54 (1.02-2.33)	**0.041**
Trust		
Don't trust everyone completely or somewhat	1.00	
Trust everyone completely or somewhat	2.11 (1.28-3.50)	**0.004**
Political action		
Have not done at least one political action	1.00	
Have done at least one political action	1.75 (1.18-2.61)	**0.006**

Model stable, Hosmer and Lemeshow, Chi square 2.74, p = 0.950

In terms of the variables relating to trust in different groups of people, 82% trust family completely, 34% trust neighbours completely, 22% trust doctors completely, 18% trust people of another religion completely, 15% trust people of another nationality completely, 2% trust national political leaders completely and 25% trust police officers completely.

The variable was then recoded so that those who trusted completely were given a score of 1 and those who did trust at all were given a score of 4. Scores could range from 11 (most trust) to 44 (least trust). Scores ranged from 11 to 37 with a

mean of 21.53 and SD 4.09. A variable was then created with two levels, those who trusted all of the groups completely or somewhat (20.6%) and those who did not trust all groups completely or somewhat (79.4%). Univariate odds ratios then examined the relationship between those who trusted at least one of the groups completely or somewhat and demographic characteristics (age, sex, marital status, work status, income, SEIFA IRSD and ARIA), and the multivariate odds ratios are in presented in Table 7.

Table 7: Multivariate odds ratios of demographic factors associated with those who trusted all groups completely or somewhat

	OR	**p value**
Sex		
Male	1.00	
Female	1.77 (1.18-2.66)	**0.006**
Age		
18-34 years	1.00	
35-44 years	2.02 (0.87-4.71)	0.104
45-54 years	1.29 (0.56-2.98)	0.548
55-64 years	2.67 (1.18-6.05)	**0.019**
65-74 years	2.49 (1.07-5.80)	**0.035**
75 years and over	5.44 (2.12-14.01)	**<0.001**
Marital status		
Never married	1.00	
Separated/divorced	1.98 (0.67-5.85)	0.217
Married/defacto	3.33 (1.28-8.66)	**0.014**
Widowed	1.80 (0.54-6.02)	0.340

Model stable, Hosmer and Lemeshow, Chi square 1.14, p = 0.992

Table 7 shows that women are more likely to trust than men, that older people are more likely to trust than younger people, and that married people are more likely to trust than never married people.

When we added the other SQ variables as additional independent variables within the model, and the resulting model is shown in Table 8. Those who trusted were more likely to be married or de facto or widowed, and be a member of at least one organisation and less likely to have experienced an even and a form of discrimination.

Table 81: Multivariate odds ratios of factors associated with those who trusted all groups completely or somewhat

	OR	p value
Marital status		
Never married	1.00	
Separated/divorced	2.24 (0.85-5.91)	0.102
Married/defacto	3.36 (1.44-7.83)	**0.005**
Widowed	3.08 (1.10-8.65)	**0.033**
Experienced an event		
None	1.00	
At least one event	0.64 (0.44-0.93)	**0.018**
Membership		
Not a member	1.00	
Member of at least one organisation	2.00 (1.30-3.07)	**0.002**
Discrimination		
No discrimination	1.00	
Experienced at least one form of discrimination	0.35 (0.21-0.57)	**<0.001**

Model stable, Hosmer and Lemeshow, Chi square 10.17, p = 0.118

Overall, it seems that social cohesion is higher for older people (higher trust and greater proportion of membership of organisations), people with higher incomes (higher membership of organisations), and women (higher trust). Between 20-40% of the population are members of an organisation (this differs between organisations) and complete trust across all people listed in the survey was around 20%, although this differed between 2% who trusted national political leader to 81% who trusted their family.

Social Inclusion

The variable chosen for analysis relating to social inclusion was:

During the past 12 months, have you ever experienced discrimination against you due to any of the following reasons?

Physical/mental disability

Age

Sexual harassment

Gender
Nationality
Physical appearance
Ethnic background
Criminal record
Religion
Other

The proportion of respondents who had experienced discrimination varied: 4% experienced disability discrimination, 14% age discrimination, 2% sexual discrimination, 7% gender discrimination, 4% nationality discrimination, 6% physical appearance discrimination, 3% ethnic background discrimination, 1% criminal record discrimination, 2% religious discrimination, and 4% other discrimination. The variable was then recoded into two categories, those who had experienced discrimination (23.9%) (excluding the 'other' responses due to the large number of missing) and those who had not experience discrimination (76.1%). Univariate odds ratios then examined the relationship between those who experienced discrimination and demographic characteristics (age, sex, marital status, work status, income, SEIFA IRSD and ARIA), and the multivariate analysis is presented in Table 9.

Table 9: Multivariate odds ratios of demographic factors associated with those who experienced discrimination

	OR	p value
Sex		
Male	1.00	
Female	1.53 (1.06-2.12)	**0.022**
Age		
18-34 years	1.00	
35-44 years	1.16 (0.62-2.17)	0.651
45-54 years	0.64 (0.35-2.17)	0.141
55-64 years	0.54 (0.29-1.03)	0.060
65-74 years	0.54 (0.28-1.08)	0.080
75 years and over	0.43 (0.19-0.98)	**0.044**
Income (financial year)		
$105,000-$150,000+	1.00	
$45,000-$104,999	1.09 (0.69-1.71)	0.716
$0-$44,999	1.71 (1.04-2.81)	**0.034**
SEIFA IRSD		
Lowest quintile	1.00	
Low quintile	0.93 (0.54-1.59)	0.782
Middle quintile	0.81 (0.47-1.41)	0.453
High quintile	0.45 (0.25-0.81)	**0.008**
Highest quintile	0.86 (0.49-1.48)	0.575

Model stable, Hosmer and Lemeshow, Chi square 2.22, p = 0.974

Table 9 shows that women are more likely to experience discrimination in addition to people on lower incomes (measured by the individual income and also the area based SEIFA score). However, older people are less likely to experience discrimination.

When we added the other SQ variables as additional independent variables within the model, and the resulting model is shown in Table 10. Those who experienced discrimination were more likely to be female, and have undertaken at least one political action and less likely to trust.

Table 10: Multivariate odds ratios of factors associated with those who experienced discrimination

	OR	p value
Sex		
Male	1.00	
Female	1.89 (1.36-2.64)	**<0.001**
Trust		
Don't trust everyone completely or somewhat	1.00	
Trust everyone completely or somewhat	0.31 (0.19-0.50)	**<0.001**
Political action		
Have not done at least one political action	1.00	
Have done at least one political action	1.73 (1.18-2.55)	**0.005**

Model stable, Hosmer and Lemeshow, Chi square 0.06, p = 0.996

Overall, social inclusion (as measured by discrimination) is very high in Australia, with very low levels of perceived discrimination. Nevertheless, some groups are more likely to perceive discrimination, such as women, people on lower incomes and younger people.

Social Empowerment

The variables chosen for analysis relating to social empowerment were:

Have you or would you participate in any of the political actions listed below?

Petition

Boycotts

Protests

Strikes

Online political actions

Please rate how strongly you agree/disagree with each of the following statements below:

I am optimistic about the future

In order to get ahead nowadays you are forced to do things that are not appropriate

I feel left out of society

Life has become so complicated today that I almost can't find my way

I don't feel the value of what I do is recognised by others

In terms of political actions, the proportion of people taking part are: 70% in petitions, 19% in boycotts, 23% in protests, 19% in strikes and 13% in online political action.

The variable was then recoded into two categories, those who had participated in a political action (74.1%) and those who had not (25.9%). Univariate odds ratios then examined the relationship between those who participated in a political action and demographic characteristics (age, sex, marital status, work status, income, SEIFA IRSD and ARIA), and the multivariate analysis is presented in Table 11.

Table 11 shows that increasing age is associated with increased political action (until age 75 and over). People on the lowest income level are less likely to get involved in political action although people living in outer regional areas are more likely than people living in major cities to get involved in political actions.

Table 11: Multivariate odds ratios of demographic factors associated with those who participated in a political action

	OR	**p value**
Age		
18-34 years	1.00	
35-44 years	1.60 (0.87-2.94)	0.132
45-54 years	2.20 (1.25-3.90)	**0.007**
55-64 years	2.00 (1.13-3.55)	**0.018**
65-74 years	2.16 (1.18-3.97)	**0.013**
75 years and over	1.21 (0.61-2.39)	0.581
Income (financial year)		
$105,000-$150,000+	1.00	
$45,000-$104,999	0.79 (0.51-1.21)	0.274
$0-$44,999	0.56 (0.36-0.89)	**0.014**
ARIA		
Major cities	1.00	
Inner regional	1.43 (0.54-1.59)	0.080
Outer regional	1.73 (0.47-1.41)	**0.039**
Remote and Very remote	1.47 (0.52-4.14)	0.464

Model stable, Hosmer and Lemeshow, Chi square 6.16, p = 0.62

When we added the other SQ variables as additional independent variables within the model, and the resulting model is shown in Table 12. Those who undertook a political action were more likely to be aged 45-64 years, be a member of an organisation and experienced at least one form of discrimination.

Table 12: Multivariate odds ratios of factors associated with those who participated in a political action

	OR	**p value**
Age		
18-34 years	1.00	
35-44 years	1.52 (0.81-2.84)	0.190
45-54 years	2.22 (1.24-3.96)	**0.007**
55-64 years	1.86 (1.04-3.35)	**0.038**
65-74 years	1.64 (0.89-3.02)	0.111
75 years and over	0.76 (0.40-1.44)	0.397
Membership		
Not a member	1.00	
Member of at least one organisation	1.69 (1.17-2.38)	**0.005**
Discrimination		
No discrimination	1.00	
Experienced at least one form of discrimination	1.55 (1.04-2.31)	**0.031**

Model stable, Hosmer and Lemeshow, Chi square 1.66, p = 0.976

In terms of the second variable relating to social empowerment, there was agreement on the following factors: 75% were optimistic about the future, 20% were forced to do something that was not appropriate, 9% felt left out of society, 18% felt that life was too complicated, and 24% felt that the value of what they do is not recognised.

Each variable was then recoded into five variables, with the first variable comprising those who “agreed” and strongly agreed” with the statement (compared to the remainder) and the remaining four variables those that “disagreed” or “strongly disagreed” with the statement (compared to the remainder). Finally a combined variable was created of those who were positive about at least one factor (94.9%)

compared those who were not positive about any of the statements (5.1%). Univariate odds ratios then examined the relationship between those who experienced discrimination and demographic characteristics (age, sex, marital status, work status, income, SEIFA IRSD and ARIA) and the multivariate analysis is presented in Table 13.

Table 13: Multivariate odds ratios of demographic factors associated with those who had at least one positive feeling

	OR	**p value**
Income (financial year)		
$105,000-$150,000+	1.00	
$45,000-$104,999	0.52 (0.20-1.37)	0.186
$0-$44,999	0.33 (0.13-0.82)	**0.017**

In Table 13, only one variable was left in the model, which is income. This model shows that people on lower incomes are less likely to have positive feelings about being socially empowered, compared with people on higher incomes.

When we added the other SQ variables as additional independent variables within the model, and the resulting model is shown in Table 14. Those who undertook a experienced at least one positive feeling were less likely to be aged 45-54 years organisation, experienced at least one event in the family, earn less than $45,000 and more likely to be married or defacto.

Table 14: Multivariate odds ratios of factors associated with those who had at least one positive feeling

	OR	p value
Age		
18-34 years	1.00	
35-44 years	0.23 (0.03-2.00)	0.183
45-54 years	0.11 (0.01-0.78)	**0.027**
55-64 years	0.24 (0.03-2.04)	0.192
65-74 years	0.78 (0.07-8.76)	0.837
75 years and over	0.25 (0.02-2.84)	0.263
Marital status		
Never married	1.00	
Separated/divorced	1.84 (0.58-5.82)	0.296
Married/defacto	3.18 (1.10-9.21)	**0.033**
Widowed	-	
Income (financial year)		
$105,000-$150,000+	1.00	
$45,000-$104,999	0.59 (0.19-1.84)	0.365
$0-$44,999	0.25 (0.08-0.78)	**0.017**
Experienced an event		
None	1.00	
At least one event	0.14 (0.03-0.65)	**0.012**

Model stable, Hosmer and Lemeshow, Chi square 4.29, p = 0.830

Conclusion

Overall, the using the four conditional factors of SQ, we can see that the social quality of life in Australia is fairly high. Socio-economic security is high (except for rising medical costs and the decreasing value of investments, and also around a third of people spent savings and/or borrowed money), social cohesion is fairly high (relatively high levels of membership of organisations and high levels of trust in some groups but very low levels in others, such as political leaders), social inclusion is high (low levels of perceived discrimination) and social empowerment is fairly high (generally low levels of negative feelings about issues such as being left out of society).

Notwithstanding the relatively positive picture of social quality in Australia, there were systematic differences in social quality between population groups. This was most pronounced for people on lower incomes (less that $45,000) who were more

likely to have spent their savings (lower socio-economic security), had lower levels of membership of organisations (lower social cohesion), experienced higher levels of discrimination and were involved in less political action (lower social inclusion) and had less positive feelings about their place in society (lower social empowerment). On all four domains of social quality, people in lower incomes were disadvantaged and may therefore be seen as having generally lower social quality than people on higher incomes.

The picture was more mixed in terms of age. Older people experienced more negative life events (lower socio-economic security) than younger people, although they had higher levels of membership of organisations and were more likely to trust (high social cohesion), experienced lower levels of discrimination (high social inclusion) and engaged in more political action (higher social empowerment). Therefore, on 3 of the 4 SQ conditional factors, older people may be seen as having a higher social quality than younger people, although the lower socio-economic security makes the picture more complex. In terms of gender, women are more likely to trust (higher social cohesion) although experience more discrimination (lower social inclusion) than men.

Overall, our analysis presents the first attempt in Australia to map social quality of life in a nationally representative sample and then to uncover systematic differences in social quality between population groups.

References

Bryson, L. and Verity, F. (2009) ‘Australia: From Wage Earners to Neo-Liberal Welfare State’ in International Social Policy: Welfare regimes in the developed world, editors Gary Craig and Peter Alcock, Second Edition, Palgrave, UK.

Castles, Francis G. 1994, 'The wage earner's welfare state revisited: refurbishing the established model of Australian social protection, 1983-1993, Australian Journal of Social Issues, 29(2), 120-145.

Gleeson, B., 2004, The Future of Australia’s Cities: making Space for Hope, Professorial Lecture, School of Environmental Planning, 19 February 2004.

Hounslow, B. (2002) ‘Community capacity building explained’, Stronger Families Learning Exchange Bulletin 1, Autumn pp 20-22

Industry Commission (1995) Charitable organisations in Australia, Report No. 45 AGPS, Canberra

Jamrozik, A. (2001) Social Policy in the Post Welfare State, Pearson Education, Frenchs Forest.

Martin, B and Pixley, J. (2005) How do Australians feel about their work? Australian Social Attitudes: The First Report, Australian National University, Canberra.

McClelland, A. (2006) Social Policy in Australia: understanding for Action, Oxford University Press.

Reworking the sociology of trust: Making a semantic distinction between trust and dependence

Meyer, S. B. and P. R. Ward (2009b). Reworking the sociology of trust: Making a semantic distinction between trust and dependence. The Australian Sociological Association 2009 Annual Conference Proceedings, The Australian National University, Canberra, TASA.

Abstract

Trust, as a sociological construct, has become increasingly important in recent times but an agreed definition is yet to be found. A potentially useful way of 'defining' trust is by distinguishing it from other semantically similar concepts. Niklas Luhmann has provided semantic distinctions between trust and familiarity, and trust and confidence. The purpose of this paper is to provide empirical evidence of a further semantic distinction between trust and dependence. This distinction allows us to further define trust and also to investigate the difference between 'trust' and 'dependence'.

Keywords: trust, dependence, Niklas Luhmann, power, risk

Introduction

Trust is a complex phenomenon, around which there are many definitions and theories. There is no commonly shared understanding of what trust means (Hall et al. 2001) and the concept of trust has yet to be universally defined within and across disciplines (Baier 1986; Brownlie and Howson 2005; Crease 2004; Gilson 2003; Mollering 2001; Schoorman et al. 2007). Although post-structural sociologists may argue that trust will never be universally defined, we address the concept of trust in line with the underpinning framework of Giddens and Luhmann's social theories of trust. Both theorists approach trust in terms of its function in society as part of structure and agency rendering an understanding the operationalisation of trust fundamental. While we recognise the difficulty in generalising trust as a concept, it is important that we know what trust is/is not in order to investigate how it is operationalised – it needs to be distinguished from other concepts. While empirical trust literature has suggested that there is a distinction between trust and dependence (Lupton 1997a; Ward et al. 2000), they acknowledge that dependency exists in relationships but they do not provide a semantic distinction between trust and dependence. This paper adds to the knowledge of sociology by making a semantic distinction between trust and dependence which may aid in finding a common definition of trust for sociological research into the operationalisation of

trust. The distinction also allows a critique of current quantitative research (e.g. social capital) which purports to research 'trust' but which may in fact be measuring similar something else, such as dependence.

Within sociological literature on trust, three names consistently arise: Niklas Luhmann, Anthony Giddens and Georg Simmel (Brownlie and Howson 2005; Gilson 2003; Lupton 1997a; Mechanic and Meyer 2000; Meyer et al. 2008; Mollering 2001; Ward 2006; Ward and Coates 2006). For the purpose of this paper, we turn to Niklas Luhmann whose contributions have been useful for defining and investigating how trust is operationalised because his theory offers semantic distinctions between trust and confidence and trust and familiarity (Luhmann 1979; Luhmann 1988; Luhmann 1995). Luhmann has made significant contributions to trust literature however, nowhere does he make the distinction between trust and dependence. The following paper outlines the semantic distinctions that Luhmann makes between trust and familiarity and trust and confidence. Secondly the background, methods and findings of research on coronary heart disease patients' trust in healthcare professionals' recommendations will be presented. Finally, a discussion of these findings will be used to highlight the semantic distinction between trust and dependence.

Conceptualisations of Trust

Despite the lack of agreement regarding its definition, across health sociology literature there is some consistency which we will use to define trust for the purpose of this paper. Trust is the optimistic acceptance of a vulnerable situation which is based on positive expectations of the intentions of the trusted individual or institution (Dugan et al. 2005; Gilson 2003; Hall et al. 2001).

Luhmann addressed the concept of trust in terms of its function in society (Luhmann 1988). He argued that trust functions as a way to reduce complexity in society. Systems need to reduce complexity in order to function properly. Luhmann viewed trust as the medium of interaction between social systems and the representatives of those systems.

Trust can be understood as 'social' in that trust occurs as a result of communication within and between system(s). While Luhmann focused on the function of trust between systems, his theory is applicable at an individual level as well. By reducing the complexity of how we think about the world around us, trust assists us by

simplifying our decisions to act (Pearson et al. 2005). An individual's decision to place (dis)trust reduces complexity in society because both decisions function as a means for rational decision-making (Luhmann 1979).

Luhmann argues that individuals base decisions to place (dis)trust in an individual or system[11] on both experience (history of past (un)successful trust) as well as the risks associated with decisions made for the future. Trust helps us to make future decisions based on experience but also uses the knowledge of the past to minimize risk by tapering the number of possible actions (Luhmann 1979). It is for this reason that he argues that trust can only exist in situations of risk. If there is no risk considered, there is confidence or expectation rather than trust (Luhmann 2005)

In addition to providing a conceptualisation of trust, Luhmann also makes semantic distinctions between trust and familiarity, and trust and confidence.

Trust vs. Familiarity

Luhmann argued that both familiarity and trust are linked to one another with trust presupposing familiarity (Luhmann 1979). Familiarity is based on experience that is represented in history and similar to trust, familiarity reduces complexity because it excludes unanticipated action (Luhmann 1979). Both serve as complementary ways of absorbing complexity (Luhmann 1988).

Familiarity differs to trust in that although it too reduces the complexity of our decisions based on past experience, trust is based on past information but *also* the risks associated with decisions made for the future. Nevertheless, although they differ, trust and familiarity belong to the same family of self-assurances (Luhmann 1988).

---

[11] Luhmann identifies two types or levels of trust; system based and interpersonal trust. System-based trust is that which is placed in the system or institution (e.g. the economic or legal system, a University or hospital) whereas interpersonal trust is negotiated between individuals (a decision to trust someone or not) but also being a learned personal trait. He argues that trust in invested in and originates as an institutional level; the institutional trust that society places in one social system is highly dependent on their trust in other social systems Luhmann, Niklas. 1979. *Trust and Power: Two works by Niklas Luhmann*. Brisbane: John Wiley and Sons.

While trust is a solution for problems of risk, it has to be achieved within a familiar world. Familiarity is a factor involved in our decision(s) to place trust in an individual or an institution (Luhmann 1988). For example, how long we have known someone impacts our level or familiarity with them which subsequently affects whether we (dis)trust them. Whether or not a person places trust in future events is subjective as each individual has a different level of risk-seeking/risk-avoiding, trusting or distrusting. People use familiarity as a mechanism for calculating risk (Luhmann 1988).

Trust vs. Confidence

Luhmann also distinguishes trust from confidence. Both refer to expectations which may lapse into disappointment, however, they differ in attribution (Luhmann 1988). Trust requires some element of risk and is only possible in a situation where the likelihood of negative outcomes *may* be greater than the positives that successful trust awards (Luhmann 1988). If we choose one action in preference to another, despite the possibility of being disappointed, we are trusting. As a result of this *decision* to trust, any disappointment is attributed internally (Luhmann 1988). Confidence occurs when we do not consider alternatives and rely on our expectations. We have confidence that our expectations will not be disappointed. In the case of disappointment, blame is attributed externally because we did not choose, but expected, and therefore the disappointment was not a result of our erroneous trust (Luhmann 1988). In this sense, trust means that we are retaining our agency; we 'choose' to trust. Confidence on the other hand, involves giving over agency to the system or individual involved; the decision is no longer our 'choice'.

Luhmann on dependence

While Luhmann makes the distinction between trust and confidence and trust and familiarity, he does not make a semantic distinction between trust and dependence. Dependence is mentioned briefly by Luhmann in reference to his influential social system theory. While his discussion of dependency is important for understanding social systems theory, he does not address dependency with regards to social theories of trust and therefore, it is not beneficial for defining or operationalising trust.

This paper moves on to a study which highlights a distinction between trust and dependence. Some people involved in the study argue that they 'trust' the medical

system because they have no choice but to trust. Using Luhmann's conceptualisation of trust, the findings suggest dependency rather than trust because trust indicates 'choice' (agency) where as dependency indicates 'no choice' (no agency).

Methodology

The data presented in this paper are based on a study investigating social theories of trust. Based on a critique of current social theories of trust, the study aimed to investigate several factors which have been identified as affecting an individual's decision to place (dis)trust in an individual or institution. These factors include: the negotiation of trust between individuals, the level of trust one has in the system or institution, and the level of risk involved in trusting (Giddens 1990; Giddens 1994; Luhmann 1979; Luhmann 1988; Luhmann 2005), and personal experience and social factors (socioeconomic status (SES), age, sex) (Meyer et al. 2008). As a vehicle for this research, patients with coronary heart disease (CHD) were interviewed regarding trust in dietary recommendations provided by health care professionals.

People with CHD were chosen as participants because CHD is a chronic condition that is the most common cause of death in Australia and the risks involved may be reduced by making lifestyle change (National Heart Foundation of Australia 2008) including complying with the dietary recommendations of healthcare professionals. Participants were considered to be high risk CHD patients and were chosen based on the premise that the health risks they have may potentially affect their decision to trust in dietary recommendations. In addition, because CHD affects one in two Australian men and one in three Australian women over the age of 40, a large sample size provided ease of obtaining participant diversity with regards to age, SES and sex.

A qualitative inductive approach has been adopted for this research. Qualitative research is useful for understanding the complexity of opinions from the perspective of the research participants. In investigating trust, qualitative research is necessary to understand how individuals conceptualize trust, especially given that trust as a concept is often taken for granted.

Semi-structured interviews were conducted with 13 Australian participants interviewed between October 2008 and June 2009. Based on the aforementioned

theoretical frame, the sampling strategy was developed to investigate risk[12] and socioeconomic status[13] (as well as sex and age) as well as factors affecting interpersonal and institutional trust. Participants were sampled from 13 different suburbs in Adelaide, SA in order to provide diversity with regards to socioeconomic status.

Participants were recruited through South Australian cardiac rehabilitation programs which ensured that they had high risk CHD as all participants of cardiac rehabilitation program in South Australia have had some form of cardiac event and/or heart surgery. Participant demographics consisted of 8 males and 5 females from areas of both high and low SES, with ages ranging from 32-80 years.

Participants were recruited and interviewed by the researcher. Initial questions were designed to develop rapport and focused on the participants' current diet opposed to what they were eating prior to their diagnosis of CHD. Subsequent questions investigated participants' relationships with their general practitioner (GP), healthcare providers in general (cardiologists, cardiac nurses, dieticians), their experiences with the medical system, their thoughts on the medical system, the risks involved in non-compliance with dietary changes, their trust in institutions (mainly the medical system and the government) and their trust in medical advice.

All interviews were conducted in English, audio recorded, and verbatim responses to each question were transcribed by the primary researcher. Transcripts were reviewed for transcription accuracy and revised if necessary. In addition, transcripts were reviewed by the research team for triangulation in analysis after the initial thematic analysis was carried out using Nvivo version 8. All transcripts were analysed using open-coding, axial coding and selective coding (Flick 2006).

Findings

The findings indicate that participants have a high level of trust in their GPs. When asked if they have ever doubted or distrusted any of the information provided by their healthcare professionals (GPs, cardiologists, nurses and dieticians), all

[12] For the purpose of this study, participants who have high risk CHD have been defined as patients who have had some form of cardiac event/heart surgery.

[13] Socioeconomic status was determined by area of residence (using the SIEFA scale), level of education and profession.

respondents indicated that “no”, they had never doubted the information they had been provided with. When asked whether or not they trust their GP, every participant indicated that “yes”, “definitely”, “absolutely” they did trust them or they made statements such as, “I’ve got faith in him to do the right thing” (Trish), “I’d put my life in her hands” (Cindy), and “I trust them completely” (Paul). The respondents of this study have all being seeing their GPs between 3 and 50 years and suggested that they are familiar with their GPs. Luhmann would argue that the level of familiarity they have with their GPs impacts the development of *trust* in the doctor patient relationship (Luhmann 1988) which was evident in the participants responses.

When speaking about seeking medical attention for minor health problems, most of the participants stated that they trust their GP specifically and that they did not have a general trust in all GPs. For example, when asked if they would see a different GP if theirs was not available, some participants said that they would see someone from their GP’s team, but that they would not visit another clinic. Others noted that they would wait to see their specific GP. Reasons for this included that they were familiar with their GP (and for some, the other GPs at their usual clinic), their GP knew their history, they trusted their GP, they had been going to that clinic for up to 50 years etc. Ruth explains,

“We’ve had the locum come here but they’re often not very interested and they’re not very good cause I had them come one night when I was fibrillating and he said ‘Ah, don’t think there’s anything I can do. See your doctor in the morning’.”

Ruth’s went on to discuss how she would not be likely to see another locum doctor. While she would see anyone else at the clinic where she sees her regular GP, she would no longer see a locum. This suggests that the level of familiarity she has with the medical clinic she attends affects her trust in the doctors that practice there.

The theme of dependency emerged when participants spoke of their experiences in emergency situations. Participant’s responded that they would ‘trust’ any doctor when they were in emergency situations. We question whether this is ‘trust’ (i.e. choice) or ‘dependency’ (i.e. no choice). Many participants discussed how this was the case when they had their heart attack. For example, Mary stated “Yeah I think when you’re in an emergency you *have to have* [emphasis added] trust in the medical system. For emergency things you do have to trust them.”

The extent to which these participants were actually 'trusting' rather than 'depending' on the healthcare professionals in emergency situations remains unresolved. Participants suggested that their GPs need to have certain qualities to be trusted: being "thorough", "caring", "speaking my language", "he took the time to explain" or that their GP is "sincere" or "genuine". Conversely, when it came to emergency situations, participants found that they did not have a choice but to trust. For example, Cindy, a 65 year old woman who has had two heart attacks and bypass surgery stated "If I don't trust them, who else am I going to trust?" Similar statements were given by several other participants. When discussing with Bob about his trust in the medical system he noted, "*You don't have a choice* [emphasis added] that's what I'm saying. You still have to trust." Similarly, Bob's wife Lynda discussed patients' lack of options when it comes to seeking advice, "You just have to trust that they'll do the right thing. And if they're not doing the right thing, what can you do?"

Several of the participants have had negative experiences within the medical system and yet their trust has not been affected. The medical system did not function in the interest of both Cindy and George[14] as medical errors resulted in both of them having heart surgery. Despite this, both of them still have 'trust' in both the medical system and healthcare professionals. Cindy says she still trusts the doctor who overlooked her heart attack even though his reputation has led her to be sceptical, "I'd have trust in him but there's been a few stories." Her argument is that she trusts him however, the following statement indicates dependency. She discussed how he is the only doctor who works Sundays and if she has to go in on Sunday, she'll see

[14] Cindy went to her local medical centre when having chest pains. She was seen by a doctor that she does not usually see. When she suggested she needed and echocardiogram because she had not had one since her last heart attack (24 years earlier), her doctor decided against it. He diagnosed her with gallstones and sent her home. As it turns out, she had suffered a heart attack which was later diagnosed by her regular GP through an enzyme test that picks up if you have had a heart attack in the last 48 hours. George was diagnosed with a heart murmur 6 years ago. His cardiologist said that they needed to keep an eye on it and said George would be mailed a letter asking him to come in for regular check-ups. George was never contacted and 7 years later (2008) he suffered from a heart infection as a result of the murmur and had to have bypass surgery.

him and trust his information, “if you’re not going to listen to them, who the hell are you going to listen to?” Uncertainty remains as to whether or not Cindy and many of the other respondents actually ‘trust’, or if their health risks make them dependent on the most reliable source of information; healthcare professionals or ‘experts’.

Concluding remarks

Findings suggest that the degree of urgency in a medical decision (the risk involved in a medical decisions) is useful for determining the level of dependency an individual has on the medical system. Participants’ responses indicate that they have a great deal of *dependence* on medical professionals because of their health condition (CHD). This suggests that participants do not have ‘trust’ in medical advice in emergency situations but rather, they have no choice but to follow expert medical advice. They are ‘dependent’ on it.

Trust can be differentiated from dependency just as trust differs from familiarity and confidence. As noted above, Luhmann suggests an individual’s decision to trust is based on both experience and the risks associated with their decision. Dependency differs to trust in that a person who is dependent does not make decisions based on past experiences. They base their decision on the immediate risk and urgent need for medical advice and treatment from an ‘expert’. In this case of this study, it may be argued that the participants are dependent on medical advice because of the urgency of their medical condition.

The findings may also be explained using Luhmann theorisations of power (Luhmann 1979). The relationship between doctor and patient may be understood as asymmetrical, especially in situations of emergency. As noted in the findings, many of the patients suggested that they did not trust *all* doctors. Their GPs needed to have specific characteristics such as being ‘sincere’, ‘caring’ etc. Luhmann would suggest that patients making a conscious reflexive decision to trust GPs with certain characteristics do so because these participants are familiar with their GPs. They base their decision to trust them on past information but they also have the time to assess the risks in their decisions because they are not likely in a state of emergency when visiting a GP surgery. If they are not satisfied with the care their receive from one GP, they can see another GP of their choice just as Ruth did after having a negative experience with a locum GP. Conversely, in situations of emergency, participants said that they would trust any doctor, regardless of if they had the qualities which were required for trust in a GP. In situations of risk, the

power imbalance between doctors and patients becomes more defined. Luhmann (1979:109) suggests that "power involves causing outcomes despite possible resistance" which is evident in participants responding that they 'don't have a choice'. Cindy's testimony is evidence of this as she suggests that she does not trust the doctor who allegedly misdiagnosed her, but she would still see him because he is the only one that works Sundays. Although she might be reluctant to see him, she has no choice if she has an urgent need to see a doctor on Sunday.

The findings might also be explained using Foucault's discussion of the 'clinical gaze' and notion of medicalisation (Foucault 1973). Foucault's suggests that since the birth of the medical clinic, discourse and dialogue between doctors and patients has changed. This shift altered the patient-physician relationship as the divide between 'lay' and 'expert' was cultivated. The lay-professional relationship remains asymmetrical and therefore, the patient falls dependent on the medical professional and the medical system in times when 'expert' information is needed. Indeed, Foucault's suggestion of the asymmetrical relationship is evident in participant's discussion regarding their 'trust' in times of risk. In situations of risk, the asymmetry is heightened and there is no choice but to trust. Similarly, Luhmann (1979:114) argues that power "secures possible chains of effect independent of the will of the participant which is subjected to power – whether he so wishes or not – the causality of power lies in neutralizing the will, not necessarily in breaking the will of the interferer – this affects him also, and most precisely when he intended to do the same thing and then learns that he has to do it anyway". Regardless of if they would have trusted the medical professional in times of emergency, patients do not have a choice but to trust.

The findings are in fitting with Foucault and Luhmann but it must be acknowledged that Foucault's notion of 'medicalisation' has been challenged (Lupton 1997b). Recent sociological literature suggests that patients are taking control back over their medical decisions (Crawford 2004; Kraetschmer et al. 2004) and are increasingly critical of those making decisions on their behalf (Birungi 1998; Davies and Rundall 2000; Gilson 2003; Mechanic and Meyer 2000; Russell 2005) as late modern individuals become more autonomous through access to information and technology . This critique is evident in the findings as participants made reflexive 'choices' to trust certain GPs. Nevertheless, power and medicalisation do appear to be important when addressing with concept of patient dependency.

The findings suggest a distinction between trust and dependency. While there are many factors that influence an individual's decision to 'trust' in situations of risk or emergency including the asymmetrical power relationship between doctors and patients, the concept of dependence is useful for investigating how trust is operationalised. We argue that in situations of risk, patient compliance or submission is not a matter of trust but rather, dependence. A person who is dependent does not base their decision to put their life in the hands of a doctor on past experience as they would in situations of trust. They base their decision on the immediate risk and urgent need for medical attention that only a medical professional can provide.

Similar to Luhmann's distinctions between trust and confidence and trust and familiarity, making the distinction between trust and dependence adds to the knowledge of sociology because it delineates the semantically different concepts. In addition, this distinction has sociological ramifications regarding human agency. As suggested earlier in this paper, trust is a matter of choice. When we trust we retain our agency because if the trust is broken, we attribute the blame internally. Conversely, when we place confidence, we give over our agency and blame is attributed externally. When we are dependent, we do not act. Rather, we have no agency because we do not consciously decide to place trust or confidence. We passively accept decisions to be made for us (docile bodies). The notion of dependence is in need of further investigation, although findings suggest that power appears to be an influential facet in patient autonomy, agency, reflexivity and dependence.

Acknowledgments

We would like to thank Professor John Coveney and Professor Wendy Rogers for their contribution to this work.

References

Baier, Annette. 1986 'Trust and Antitrust', *Ethics* 96:231-260.

Birungi, H. 1998 'Injections of self-help: risk and trust in Ugandan health care', *Social Science and Medicine* 47:1455-1462.

Brownlie, Julie, and Alexandra Howson. 2005 ‘‘Leaps of Faith’ and MMR: An empirical Study of Trust', *Sociology* 39:221-239.

Crawford, Robert. 2004 'Risk ritual and the management of control and anxiety in medical culture', *Health, An Interdisciplinary Journal for the Social Study of Health, Illness and Medicine* 8:505-528.

Crease, Robert P. 2004 'The paradox of trust in science', Pp. 18 in *Physics World*.

Davies, H., and T. Rundall. 2000 'Managing Patient Trust in Managed Care', *The Milbank Quarterly* 78:609-624.

Dugan, Elizabeth, Felicia Trachtenberg, and Mark A. Hall. 2005 'Development of abbreviated measures to assess patient trust in a physician, a health insurer, and the medical profession', *BMC Health Services Research* 5.

Flick, Uwe. 2006. *An introdution to qualitative research*. London: Sage Publications.

Foucault, M. 1973. *The Birth of the Clinic*. London: Tavistock.

Giddens, A. 1990. *The Consequences of Modernity*. Stanford: Stanford University Press.

Giddens, Anthony. 1994 'Risk, trust, reflexivity', Pp. 194-197 in *Reflexive Modernization: Politics, Tradition, and Aesthetics is the Modern Social Order*, edited by Ulrich Beck, Anthony Giddens, and Scott Lash. Cambridge: Polity Press.

Gilson, Lucy. 2003 'Trust and the development of health care as a social institution', *Social Science and Medicine* 56:1453-1468.

Hall, Mark A., E. Dugan, Beivao Zheung, and Aneil K. Mishra. 2001 'Trust in Physicians and Medical Institutions: What IS IT, Can It Be Measured, and Does It Matter?', *The Milbank Quarterly* 79:613-639.

Kraetschmer, Nancy, Natasha Sharpe, Sara Urowitz, and Raisa B. Deber. 2004 'Patient preferences for participation in decision-making', *Health Expectations* 7:317-326.

Luhmann, Niklas. 1979. *Trust and Power: Two works by Niklas Luhmann*. Brisbane: John Wiley and Sons.

Luhmann, Niklas. 1988 'Trust: Making and Breaking Cooperative Relations', Pp. 94-107 in *Familiarity, Confidence, Trust: Problems and Alternatives*, edited by D. Gambetta. New York: Basil Blackwell.

Luhmann, Niklas. 1995. *Social Systems*. Stanford California: Stanford University Press.

Luhmann, Niklas. 2005. *Risk: A Sociological Theory*. New Brunswick, New Jersey: Transaction Publishers.

Lupton, Deborah. 1997a 'Consumerism, Reflexivity and the Medical Encounter', *Social Science and Medicine* 45:373-381.

Lupton, Deborah. 1997b 'Foucault and the medicalisation critique ', in *Foucault Health and Medicine*, edited by A. Petersen and R. Bunton. London: Routledge.

Mechanic, David, and Sharon Meyer. 2000 'Concepts of trust among patients with serious illness', *Social Science and Medicine* 51:657-668.

Meyer, Samantha, Paul Ward, John Coveney, and Wendy Rogers. 2008 'Trust in the health system: an analysis and extension of the social theories of Giddens and Luhmann', *Health Sociology Review* 17:177-186.

Mollering, Guido. 2001 'The Nature of Trust: From Georg Simmel to a Theory of Expectation, Interpretation and Suspension', *Sociology* 35:403-420.

National Heart Foundation of Australia. 2008 'Coronary Heart Disease'. Adelaide.

Pearson, Siani, Stephen Crane, and Marco Casassa Mont. 2005 'Persistent and Dynamic Trust: Analysis of Trust Properties and Related Impact of Trusted Platforms', Pp. 355-363 in *Trust Management*, edited by L.P. Hewlett-Packard Development Company. Bristol: Springer Berlin.

Russell, Steven. 2005 'Treatment-seeking behaviour in urban Sri Lanka: Trusting the state, trusting private providers', *Social Science and Medicine* 61:1396-1407.

Schoorman, David F., Roger C. Mayer, and James H. Davis. 2007 'An Intergrative Model of Organizational Trust: Past, Present, and Future', *Academy of Management Review* 32:344-354.

Ward, Paul. 2006 'Trust, Reflexivity and Dependence: A 'Social Systems Theory' Analysis in/of Medicine', *European Journal of Social Quality* 6:121-133.

Ward, Paul, Paul Bissell, and Peter R. Noyce. 2000 'Inishgt into the Uncertain World of the Consumer: Reflections on the Risks of Non-Prescription Medicines', in *Risk, Trust and Welfare*, edited by Peter Taylor-Gooby. London: MacMillan Press Ltd.

Ward, Paul, and Anna Coates. 2006 '"We shed tears, but there is no one there to wipe them up for us": narratives of (mis)trust in a materially deprived community', *Health: an Interdisciplinary Journal for the Social Study of Health, Medicine and Illness* 10:283-301.

The importance of 'trust' for the Theory of Social Quality: a Sociological Exegesis

Ward, P. R. and S. B. Meyer (2008). The importance of 'trust' for the theory of social quality: a sociological exegesis. International Nanjing Conference of Social Quality and Social Welfare: "Social Quality in Asia and Europe: Searching for the Ways to Promote Social Cohesion and Social Empowerment", Nanjing China.

Authors:

Samantha B Meyer

PhD Candidate

Department of Public Health

Flinders University, Adelaide

e-mail: meye035@flinders.edu.au

Paul R Ward

Associate Professor of Public Health Research

Department of Public Health

Flinders University, Adelaide

e-mail: paul.ward@flinders.edu.au

Introduction

There is a burgeoning wealth of literature on trust in a number of disciplines including sociology (Meyer & Ward 2008; Mollering 2001a; Mollering 2001b; Scambler & Britten 2001), public health (Gilson 2003; Ishikawa & Yano 2008; Lupton 1996; Meyer & Ward 2008; Rhodes & Strain 2000; Taylor-Gooby 2006; Thom 2000; Thom et al. 2002; Tibandebage & Mackintosh 2005; Trachtenberg et al. 2005; Ward & Coates 2006; Whetten et al. 2006; Wright et al. 2004), psychology (Miles & Frewer 2002; Silvester et al. 2007) and political science (Alexander 1996; Fukuyama 1995; Giddens 1994; Hardin 2006; Janssen 2006) which reflects the growing awareness in both research and policy of the importance of trust for society's wellbeing. At both an individual and societal level, trust is important for health and wellbeing and is "fundamental to effective interpersonal relationships and community living" (Mechanic & Meyer 2000; p.657). Findings from a substantial body of literature across a broad range of disciplines suggest that trust is an

important component for the smooth functioning of society and thus for the development, maintenance and sustainability of the social quality of people's lives.

While there is a great deal of literature which argues the importance of trust for the wellbeing and health of society, there is strong evidence suggesting that modern social developments have led the erosion of both interpersonal trust and institutional trust in a number of democratic countries; interpersonal trust being trust between two or more individuals and institutional trust being an individual's trust in one or more social system(s) (Birungi 1998; Davies 1999; Gilson 2003; Mechanic & Meyer 2000; Russell 2005; Welsh & Pringle 2001). There are a number of contributing factors to this decline in trustworthiness which are beyond the scope of this paper. However, more pertinent is the suggestion that a decline in trust may lead to continuous vigilance and anxiety within society (Crawford 2004); therefore impacting individual and societal wellbeing and social quality.

This paper takes a salutogenic[15] approach to understand the importance of trust with regard to wellbeing and social quality. The concept of salutogenisis was put forward by Antonovsky (1990) who suggests that the real mystery of disease is not understanding why people get sick and die (the understanding of pathology, epidemiology and disease) but rather, understanding how and why some people suffer less than others; salutogenisis or the 'origins of health'. Put simply, salutogenisis is an ideology grounded in the belief that in order to understand the social systems that impact health, we must focus on the in-built conflict which shapes these inequalities in health. The concept of salutogenisis provides a new framework within which we can understand health and illness.

While the decision to take a salutogenic approach to explaining wellbeing may be innovative and relatively unexplored in application to social quality, it can be argued that the theory of social quality is in itself, a salutogenic approach to understanding health and wellbeing. The current theory of social quality addresses the in-built relationships that exist between the social factors and related systems that impact health (the four quadrants of the model). The aim of this paper is to demonstrate

[15] The term salutogenesis comes from the Latin *salus* = health and the Greek *genesis* = origin and is a concept that focuses on factors that support human health and well-being rather than on factors that cause disease Antonovsky, A. (1990) Salutogenesis: Studying health vs. Studying disease *Congress for Clinical Psychology and Psychotherapy*, Berlin..

how trust underpins the four quadrants. Trust plays an important role in the social systems and institutions that make up each of the four quadrants in the current model of social quality. A salutogenic approach to understanding social quality is beneficial as it guides us to investigate and evaluate the in-built conflicts[16] or relationships that exist between the four domains outlined in the current model. Put simply, salutogenisis argues that the conflict that exists between social systems is related to the unequal distribution of health and wellbeing; both of which can be understood as being important to social quality. If we take this approach to look at the current model of social quality, we may be able to understand inequalities in health by looking at the conflict or relationships between each of the four quadrants (all of which can be argued to be comprised and/or affected by social systems). As this paper will demonstrate, trust underpins a number of the social systems that play a role in each of the quadrants; therefore, trust underpins the Theory of Social Quality.

This paper outlines the current theory of social quality and provides an argument which suggests that before the current theory can be used to frame empirical research in any discipline, the model needs to be reworked. Within this paper, we provide a theoretical framework that may be integrated as part of the theory of social quality. We suggest ways in which current social theories of trust may be situated within each of the four quadrants included in the current social quality model; socioeconomic security, social cohesion, social inclusion, social empowerment. Evidence and argument will be provided to support the argument that trust plays a more significant role social quality than the current model suggests.

Critique of the current model/theory of Social Quality

The current theory of social quality is based around four main domains which comprise 50 sub-domains and 94 indicators (van der Maesen & Walker 2005). The four main domains or quadrants consist of (Ward 2006):

Socioeconomic security – meaning, the extent to which individual people or groups of people have access to and utilization of successful outcomes related to a variety

[16] The term conflict is used by Antonovsky. We are not suggesting that there is necessarily a 'conflict' between the four domains that make up social quality; however, inequalities in health can be a result of conflict between social systems and therefore, rather than simply acknowledging the relationship between the systems, we also recognise the potential for conflict.

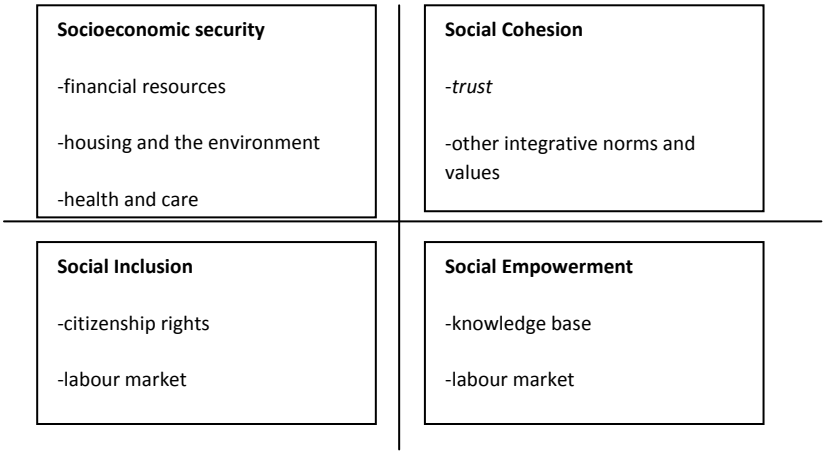
of resources (including finances, housing, healthcare, employment and education) throughout and over time.

Social Cohesion – related to the extent to which individual people or groups of people share in social relations (including identities, values and norms).

Social Inclusion – related to the extent to which individual people and groups have access to and are integrated into the different institutions and social relations of everyday life.

Social Empowerment – related to the extent to which the personal capabilities of people are enhanced by their social relations.

Figure 1 – the Quadrants of Social Quality



As noted in the above model (Figure 1 (van der Maesen & Walker 2005), trust is located in one of these four domains; social cohesion. This paper suggests that there is a place for trust within each of these four domains. Luhmann argues that trust is the 'glue' that holds society together (Luhmann 1988) and after an extensive critique and analysis of theoretical and empirical trust research (Meyer, Ward et al 2008), we put forward that trust underlies each of the four domains outlined it the current model of social quality.

Social theories of trust: An overview

Although there are an number of social theorists that have contributed to 'social theories of trust', this paper specially deals with the theories of Giddens and Luhmann because both have been consistently cited in the majority of theoretically informed literature on trust (Andreassen et al. 2006; Bordum 2004; Bordum 2005; Brownlie & Howson 2005; Gilson 2003; Lupton 1997; Mechanic & Meyer 2000; Pearson et al. 2005; Salvatore & Sassatelli 2004; Ward & Coates 2006). While both

Giddens and Luhmann have made considerable contributions to trust literature across several disciplines, this paper deals specifically with aspects of their work that are relevant to the application of trust theories within the social quality framework.

Prior to investigating their theories, it must be acknowledged that Giddens and Luhmann specifically recognise two types of trust: institutional (also termed abstract of faceless) and interpersonal (facework) (Giddens 1991; Giddens 1994; Luhmann 1990). Both Giddens and Luhmann view interpersonal trust as a learned personal trust that is negotiated between individuals (an individual's decision to trust someone or not). Institutional trust is the trust that is placed in the system or institution; for Luhmann trust in on social system is highly dependent on our trust in another social system.[44] It is important to acknowledge the distinction between institutional and interpersonal trust because *"Trust occurs in a framework of interaction which is influenced by both personality and social systems, and cannot be exclusively associated with either*"(p6)[44].

How is trust conceptualised?

Giddens argues that an individual's trust rests on a vague and partial understanding as some of our decisions are based on past experiences that are believed to be reliable for present decisions (Giddens 1990). In order for an individual to have 'trust', he argues that their decision must combine good reason (past experience) with something further that satisfies their 'partial understanding' (Giddens 1991). He refers to this partial understanding as a 'leap of faith' or 'ontological security' (Giddens 1991); a commitment to something other than just cognitive understanding (Brownlie & Howson 2005). Therefore, trust only exists when there is ignorance as there is no need to trust in a situation where one has complete knowledge (Giddens 1991). In other words, Giddens argues that we only place trust in situations of uncertainty. If past experience or good reason satisfies our understanding, we have no need to trust. For instance, one does not 'trust' that the sun will rise tomorrow. Based on our past experience of it rising everyday and our good reason that it is highly unlikely that it will not rise, we may have confidence, but not trust.

Luhmann looks at trust in terms of its function in society (Luhmann 1988). An individual's decision to place trust or distrust in something or someone reduces the complexity in their social world because their decision functions as a way to pursue their actions rationally (Luhmann 1979). For instance, if an individual makes a

conscious decision to trust in their government, they can pursue their decision to vote based on rational choice. As a citizen who is constantly reliant upon decisions regarding systems or institutions that are run by the government, placing trust in their government reduces the complexity of subsequent decisions; if they trust their government, they are likely to trust in the systems, institutions, and policies controlled by government. Luhmann argues that systems (social systems[17]) need to reduce complexity in order to function properly and with increasing complexity, the need for assurances through trusting relationships grow accordingly (Borch 2005). Put simply with regards to the above example, as new policies and regulations are set by the government that are often beyond the understanding of the lay person (complexity is increased), the need for trusting relationships grows accordingly. The increase in complexity leads to increased need for trust. Brown (2008) argues that trust is best understood in a multidimensional sense; trust in one social system is highly dependent on our trust in another social system.[44]

Trust in modernity; the construction of trust as a function of (and for) society

Another aspect of trust that is central to understanding its role in social quality is modernity which is a concept that both Giddens and Luhmann address. Giddens discusses 'modern social forces' (such as the expansion of electronic communication, technology etcetera) and how they have played a central role in the organization of social relationships (Giddens 1991). He argues that this expansion has created a demand for 'expert systems' – systems of expert knowledge which now penetrate virtually all aspects of social life. For instance, an expert system may be the medical system which provides us with expert information regarding the medicines we should take, the food we should eat, or the treatments we should undergo.

Although these 'expert systems' provide information which the average lay person often has little knowledge of, Giddens also suggests that the lay populace does recognise that expert systems cannot adequately anticipate the future. For example, the current state of global 'economic crises' provides evidence that although there are many 'expert' financial advisors with a great deal of knowledge that is not likely understood by the lay populace, they were unable to adequately anticipate the

[17] Luhmann, a social system's theorist, refers to what he terms social systems. Examples of social systems are the economic system, the political system, the medical system etcetera.

future and as a result, a large proportion of people who placed trust in these systems of expert knowledge. It is for this reason that Giddens argues that (mis)trust stems from interpersonal relationships with the people who represent the expert systems. He uses the term 'access point' to identify the meeting ground in which the individual is seen to represent the social system (Giddens 1990). For example, an access point may be a physicians' surgery where the physician is seen to represent the medical system, or a bank where the bank teller is seen to represent the financial or economic system. Giddens (1990:85) argues that *"Although everyone is aware that the real repository of trust is in the abstract system, rather than the individuals who in specific contexts 'represent' it, access points carry a reminder that it is the flesh-and-blood people (who are potentially fallible) who are its operators"*. Put simply, Giddens argues that institutional trust presupposes and is determined by interpersonal trust (Meyer et al. 2008). For instance, Giddens would argue that in order to have trust in the economic system, we must first have interpersonal trust in our financial advisor (who represents the system).

While Luhmann does not acknowledge the idea of 'expert systems', he does discuss the use of social systems and personal systems as a means of reducing complexity (Meyer et al. 2008). It is at this point that he goes on to discuss the difference between trust and confidence (this distinction is discussed later in the paper); however, more pertinent to this paper is Luhmann's discussion of the notion of time as a relation to trust. He outlines the problematic relationships between trust and time stating that *"To show trust is to anticipate the future. It is to behave as though the future were certain"* (Luhmann 1979:10) which is similar to Giddens discussion of how we rely on systems of expert knowledge but we recognise that they cannot adequately predict the future and therefore trust is necessary to fill the partial understanding. While this, as argued above, has led Giddens to state that trust operates on an individual level (trust is built and sustained in interpersonal relationships) (Figure 2), Luhmann takes a different approach and argues that trust is seen as both an outcome of, and response to increasing complexity in society. The complexity and uncertainty inherent in society means that we cannot adequately anticipate the future; trust allows us to behave as though we can. Individuals have come to depend on learning and confirming trusting relationships between the boundaries of internal *systems* and the external environment (Luhmann 1988). For instance, Luhmann would argue that an individual can learn to trust a financial advisor because they are part of a trusted external system – the economic system - regardless of if they have never met the advisor and does not know

anything about them terms of demeanour or personality. Alternatively, they may have learned to trust between the boundaries of systems and believe that both the economic system (and systems that influence the economic system – for example, the political system) and the financial advisor will operate in their best interest. Contradictory to Giddens who would argue that trust must be initiated in the financial advisor before an individual can have trust in the economic system, Luhmann would argue that trust must occur in the social systems before one can have trust in the representatives of the social system (the financial advisor) (Figure 3).

Figure 2: Giddens – an individual's trust in the system's representative is imperative before the consumer can trust in the social system.

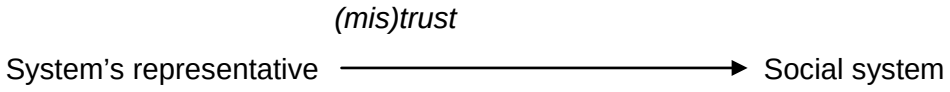
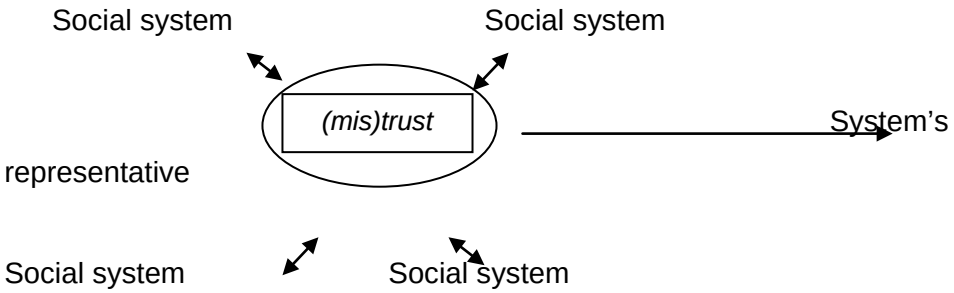


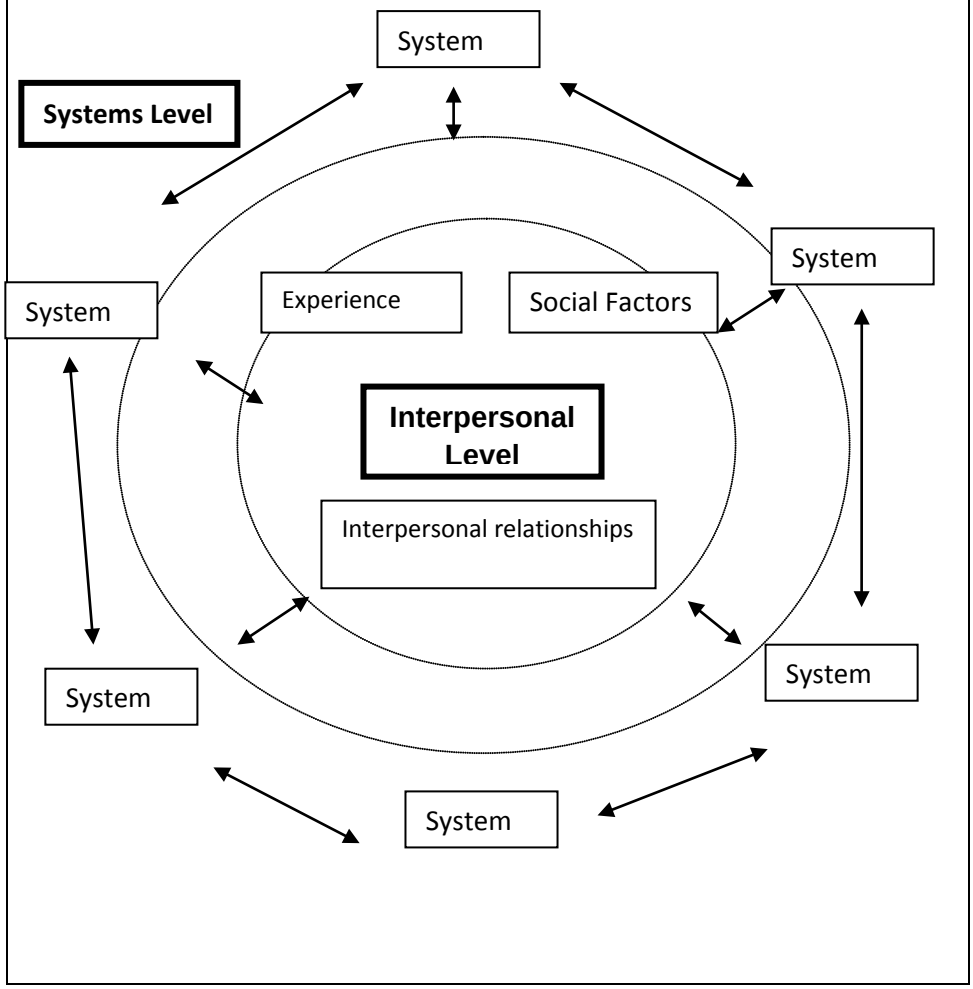
Figure 3: Luhmann – an individual must have trust in the system, and all other systems that influence it, before they can place trust in system's representative



As a contribution to current social theories of trust, we have thoroughly critiqued and analysed the work of Giddens and Luhmann to produce a more comprehensive social theory of trust that may be used to underpin the theory of social quality. We have taken a salutogenic approach to understanding the social systems that impact health and wellbeing and we have determined a number of areas where potentially mistrusting relationships may occur (on both a systems and interpersonal level). These mistrusting relationships may result in 'conflict' and subsequently lead to inequalities in health. Mistrust may lead to continuous vigilance and anxiety within society and therefore has the potential to impact social quality and wellbeing.

The framework that we propose is visually depicted in Figure 4. As previously outlined, in order to fully understand trust, it is essential to address the role that both interpersonal and institutional trust play in society. Giddens' and Luhmann's theories contradict each other as they argue that (mis)trust operates on different levels of society; Giddens maintains that interpersonal trust is necessary before there is potential for institutional trust, while Luhmann argues the reverse, that trust in the system is necessary before an individual can have trust in the system's representative. Both construct their theories in a linear manner; ignoring the web of interactive relationships that may influence individual trust. Upon our critique and analysis, trusting relationships should not be understood as operating in a linear, unidirectional manner; they can be understood as a complex 'web of interaction' (Meyer et al. 2008). Rather than arguing that trust originates at an individual OR systems based level, we argue that it may originate at either. Our model also takes on a second critique of current social theories of trust. It has been argued that Giddens fails to pay significant attention to the role that gender, age, social class, ethnicity and nationality play in the conceptualisation of trust (Lupton 1997; Lupton & Tulloch 2002). After extensive analysis and critique of Luhmann's work, a similar critique may be made of Luhmann who also fails to acknowledge the role that social factors may play in an individual's willingness to trust. Social factors are also included as a part of the web of interactive relationships in Figure 4. In addition, the category of 'experience' must be acknowledges to play a role in an individual's trust as Giddens includes it as a major component of an individual's 'decision' to trust. In summary, an individual's trust originates in both interpersonal and institutional relationships but also stems from personal experience and a variety of social factors.

Figure 4: Interactive web – a more comprehensive social theory of trust



Integrating social theories of trust: Applications in the theory of social quality

This section addresses each of the four domains and explores how trust fits within each domain and identifies areas where trust may be understood to underpin each quadrant. Given the lack of empirical research in this area, we propose arguments for the importance of trust within and across the quadrants, although these all require empirical research.

Socio-economic security is concerned with the extent to which people or groups have access to, utilisation of and successful outcomes related to a variety of

resources over time. These resources may be related to, among other things, finance, housing, healthcare, employment and education. This domain has great historical credence in public health policy and practice in terms of the importance of such factors in shaping inequalities in health and inequities in health care. In the field of medical sociology, much of the empirical literature on 'trust' has been about the ways in which trust impacts on access to and utilization of services, and therefore the concept of trust sits firmly within this quadrant. This literature highlights the importance of both inter-personal and systems-based trust within the quadrant of socio-economic security. The issue for health outcomes is less about the 'reality' or absolute nature of the socio-economic circumstances of individuals or groups, but more about the relative or 'felt' nature. There is a great deal of literature in public health showing that negative health outcomes are attributed to feelings of insecurity and relative deprivation, rather than their absolute levels – when people feel insecure (e.g. likelihood of redundancies) it affects their health in a negative way (Wilkinson 1997; Wilkinson & Pickett 2006; Wilkinson & Pickett 2007). Therefore, the major links between trust and socio-economic security (for the purposes of this paper) relate to the relationship between trust and feelings of socio-economic security.

Within a different sphere of social life, one may think about the importance of trust in socio-economic security within the labour market. For example, an employee (in, say, a car manufacturing plant) needs to place trust in their line manager or supervisor in terms of the advice they are being given about performance and career and the ways in which their supervisor advocates for them. In addition, the employee needs to trust in a more abstract notion of their 'employer' (the car manufacturer) in terms of making enough profit to keep them in a job. Furthermore, the employee needs to trust in an even more abstract notion of an 'economic system' and 'political system', so that necessary legislation and regulations are in place to keep the economic system viable for the car manufacturer to keep trading. Luhmann would argue that the employee should first invest their trust in the economic and political systems (since all else rests on these) and only then, would they invest trust in the car manufacturer and then their supervisor. However, Giddens would say that trust would first be negotiated and gained with the supervisor, and then with the increasingly abstract systems. Irrespective of theorist, we can see that trust is centrally important to a sense of socio-economic security.

Social cohesion is the quadrant that actually includes trust, so we do not need to proffer a sustained argument about the importance of trust. "Social cohesion is the extent to which social relations, based on identities, values and norms, are shared" (van der Maesen and Walker 2005:12). In many ways, this domain relates to the concept of social capital, which is used a great deal in public health. Even though social capital is a contested concept within sociology and social policy, all conceptualizations involve 'trust' which adds weight to its centrality within this quadrant.

Social inclusion is in many ways similar to social cohesion, although the difference is that social inclusion is related to the extent to which people and groups have access to and are integrated into the different institutions and social relations of 'everyday life'. This domain relates to the extent to which people and groups 'feel part of' or included in society, at an everyday level. This domain attempts to integrate processes at the level of social systems and inter-personal relations, and therefore fits neatly with the theories of trust outlines by both Giddens and Luhmann, and the new model of trust proposed in this paper.

In terms of the relationship between trust and social inclusion, our view is that people and groups cannot feel and be completely 'included' unless there are trusting relations, which need to be reciprocated by both parties in the relationship. These trusting relations may be in terms of more micro-level processes – an individual who has recently moved into a new city gaining access to and being included in a local community group (the members of the community group need to develop trust in the new person and vice versa). These may also play out in macro-level processes – the way in which policy (and by that, policy makers and implementers) excludes certain groups of society because they are not to be 'trusted'. An example of this is socio-economically disadvantaged parents in Australia – all parents receive a 'baby bonus' when a child is born which is a lump-sum cash payment to help to pay for items associated with the new baby. However, for people on low incomes, they now receive the 'baby bonus' as fortnightly payments rather than the lump-sum, because there was a concern (or lack of trust) that the baby bonus was being used 'appropriately'. This lack of trust by policy makers has served to reinforce stereotypical views of low income (including lone and young) parents and excluded them from a policy initiative which pays a lump-sum to other parents.

Social empowerment relates to the extent to which the personal capabilities of individual people are enhanced by social relations. This domain takes concepts of social inclusion and cohesion, and explores the enabling factors which empower people to act as social agents. Our view is that one of the enabling factors is trust, which obviously requires other enabling factors such as reflexivity and social and economic resources. In terms of the resources required to make the decision to trust or not to trust, the notion of reflexivity is centrally important. Luhmann distinguishes between trust and confidence, whereby confidence is an unreflexive act (not considering otherwise) whereas trust requires an active decision to trust (in terms of choosing from a horizon of alternatives or possibilities). The issue here is therefore the relationship between reflexivity, trust and empowerment. Some research has shown that in situations where individuals exhibit generalised levels of distrust, they also feel completely disempowered – they feel cut-off from and let down by various sources of power and therefore that they do not have a 'voice' to enable situations to change for the better (Ward & Coates 2006). Obviously more research needs to be undertaken to explore the links between reflexivity, trust and empowerment.

Conclusion

The current theory of social quality presents a multidimensional and multilevel approach to the advancement of practice and policy by realizing the link that exists between individuals and systems (Ward 2006). However, this paper has argued that given that *trust* is the 'glue' that permits functioning between interpersonal and systemic levels of society, it must play a larger role in the current social quality framework before it can form the basis for empirical research.

The current theory of social quality has not yet had widespread testing empirically. It can been assumed that the lack of empirical application is due to a number of factors: 1. The volatility of the current model as it can be argued that some of the factors outlined may be categorised in more than one domain; 2. It would be exceptionally difficult to control for the number of variables that exist in the current model; and 3. The coordination necessary to research the number of variables would be extraordinary as various areas of expertise would be needed before this holistic model could be put into place. The long term aim of developing and implementing a practical current theory of social quality is one that will take a great deal of ambition and coordination across a multidisciplinary team of researchers and

policy makers. This paper is our contribution to the further development of the current theory of social quality. We have put forward a framework that may be used in practical social quality research and leave it open for use within empirical research.

References

Alexander, J. (1996) Critical Reflections on Reflexive Modernization. *Theory, Culture and Society*, **13**, 133-138.

Andreassen, H.K., Trondsen, M.P.E., Kummervold, P.E., Gammon, D. and Hjortdahl, P. (2006) Patients Who Use E-Mediated Communication With Their Doctor: New Constructions of Trust in the Patient-Doctor Relationship. *Qualitative Health Research*, **16**, 238-248.

Antonovsky, A. (1990) Salutogenesis: Studying health vs. Studying disease *Congress for Clinical Psychology and Psychotherapy*, Berlin.

Birungi, H. (1998) Injections and self-help: risk and trust in Ugandan health care. *Social Science and Medicine*, **47**, 1455-1462.

Borch, C. (2005) Systemic Power: Luhmann, Foucault, and Analytics of Power. *Acta Sociologica*, **48**, 155-166.

Bordum, A. (2004) Trust as a Critical Concept. Working Draft, Copenhagen: Center of Market Economics Copenhagen Business School.

Bordum, A. (2005) Trust and Leadership on The Value Laden Concept of Trust. Working Draft, Copenhagen: Center of Market Economic Copenhagen Business School.

Brownlie, J. and Howson, A. (2005) 'Leaps of Faith' and MMR: An empirical Study of Trust. *Sociology*, **39**, 221-239.

Crawford, R. (2004) Risk ritual and the management of control and anxiety in medical culture. *Health, An Interdisciplinary Journal for the Social Study of Health, Illness and Medicine*, **8**, 505-528.

Davies, H. (1999) Falling public trust in health services: implications for accountability, **4**, 193-194.

Fukuyama, F. (1995) *Trust: The Social Virtues and the Creation of Prosperity*. New York: Free Press Paperback.

Giddens, A. (1990) *The Consequences of Modernity*. Stanford: Stanford University Press.

Giddens, A. (1991) *Modernity and Self-Identity: Self and Society in the Late Modern Age*. Stanford: Stanford University Press.

Giddens, A. (1994) Risk, trust, reflexivity. In Beck, U., Giddens, A. and Lash, S. (eds.) *Reflexive Modernization: Politics, Tradition, and Aesthetics is the Modern Social Order*, Cambridge: Polity Press.

Gilson, L. (2003) Trust and the development of health care as a social institution. *Social Science and Medicine*, **56**, 1453-1468.

Hardin, R. (2006) *Trust*. Cambridge: Polity Press.

Ishikawa, H. and Yano, E. (2008) Patient health literacy and participation in the health-care process. *Health Expectations*, **11**, 113-122.

Janssen, M.A. (2006) Evolution of cooperation in a one-shot Prisoner's Dilemma based on recognition of trustworthy and untrustworthy agents. *Journal of Economic Behavior & Organization*, **65**, 458-471.

Luhmann, N. (1979) *Trust and Power: Two works by Niklas Luhmann*. Brisbane: John Wiley and Sons.

Luhmann, N**.** (1988) Trust: Making and Breaking Cooperative Relations. In Gambetta, D. (ed.) *Familiarity, Confidence, Trust: Problems and Alternatives*, New York: Basil Blackwell.

Luhmann, N. (1990) The Paradox of System Differentiation and the Evolution of Society. In Alexander, J. and Colomy, P. (eds.) *Differentiation Theory and Social Change*, New York: Columbia University Press.

Lupton, D. (1996) You life in their hands: trust in the medical encounter. In Gave, J.V. and Gabe, J. (eds.) *Health and the Sociology of Emotions*, Oxford: Blackwell Publishers.

Lupton, D. (1997) Consumerism, Reflexivity and the Medical Encounter. *Social Science and Medicine*, **45**, 373-381.

Lupton, D. and Tulloch, J. (2002) 'Risk is Part of Your Life': Risk Epistemologies among a Group of Australians. *Sociology*, **36**, 317-334.

Mechanic, D. and Meyer, S. (2000) Concepts of trust among patients with serious illness. *Social Science and Medicine*, **51**, 657-668.

Meyer, S., Ward, P., Coveney, J. and Rogers, W. (2008) Trust in the health system: an analysis and extension of the social theories of Giddens and Luhmann. *Health Sociology Review*, **17**, 177-186.

Meyer, S.B. and Ward, P.R. (2008) Do your patients trust you?: a sociological understanding of the implications of patient mistrust in healthcare professionals. *Australasian Medical Journal*, **1**.

Miles, S. and Frewer, L.J. (2002) Trust, Perceived Risk, and Attitudes Toward Food Technologies. *Journal of Applied Social Psychology*, **32**, 2423-2433.

Mollering, G. (2001a) The Nature of Trust: From Georg Simmel to a Theory of Expectation, Interpretation and Suspension. *Sociology*, **35**, 403-420.

Mollering, G. (2001b) Piotr Sztompka: Trust. A Sociological Theory. *Organizational Studies*, **22**.

Pearson, S., Crane, S. and Mont, M.C. (2005) Persistent and Dynamic Trust: Analysis of Trust Properties and Related Impact of Trusted Platforms. In Hewlett-Packard Development Company, L.P. (ed.) *Trust Management*, Bristol: Springer Berlin.

Rhodes, R. and Strain, J.J. (2000) Trust and Transforming Medical Institutions. *Cambridge Quarterly of Healthcare Ethics*, **9**, 205-217.

Russell, S. (2005) Treatment-seeking behaviour in urban Sri Lanka: Trusting the state, trusting private providers. *Social Science and Medicine*, **61**, 1396-1407.

Salvatore, A. and Sassatelli, R. (2004) Trust and Food: A theoretical discussion *Consumer Trust in Food - A European Study of the Social and Institutional Conditions for the Production of Trust*, Bologna: University of Bologna.

Scambler, G. and Britten, N. (2001) System, lifeworld and doctor-patient interaction: issues of trust in a changing world. In Scambler, G. (ed.) *Habermas, Critical Theory and Health*, London: Routledge.

Silvester, J., Patterson, F., Koczwara, A. and Eamoon, F. (2007) Trust: Psychological and Behavioral Predictors of Perceived Physician Empathy. *Journal of Applied Psychology*, **92**, 519-527.

Taylor-Gooby, P. (2006) Trust, Risk and Health Care Reform. *Health, Risk & Society*, **8**, 97-103.

Thom, D.H. (2000) Training physicians to increase patient trust. *Journal of Evaluation in Clinical Practice*, **6**, 245-253.

Thom, D.H., Kravitz, R.L., Bell, R.A., Krupat, E. and Azari, R. (2002) Patient trust in the physician: relationship to patient requests. *Family Practice*, **19**, 476-484.

Tibandebage, P. and Mackintosh, M. (2005) The market shaping of charges, trust and abuse: health care transactions in Tanzania *Social Science and Medicine*, **61**, 1385-1395.

Trachtenberg, F., Dugan, E. and Hall, M.A. (2005) How patients' trust relates to their involvement in medical care. *The Journal of Family Practice*, **54**.

van der Maesen, L.J.G. and Walker, A. (2005) Indicators of Social Quality: Outcomes of the European Scientific Network. *European Journal of Social Quality*, **5**, 8-24.

Ward, P. (2006) Social Quality and Modern Public Health: Developing a Frameowrk for the Twenty-First Century. *European Journal of Social Quality*, **6**, 1-7.

Ward, P. and Coates, A. (2006) “We shed tears, but there is no one there to wipe them up for us”: narratives of (mis)trust in a materially deprived community. *Health: an Interdisciplinary Journal for the Social Study of Health, Medicine and Illness*, **10**, 283-301.

Welsh, T. and Pringle, M. (2001) Social capital. Trusts need to recreate trust. *British Medical Journal*, **323**, 177-178.

Whetten, K., Leserman, J., Whetten, R. and Ostermann, J. (2006) Exploring Lack of Trust in Care Providers and the Government as a Barrier to Health Service Use. *American Journal of Public Health*, **96**, 716.

Wilkinson, R.G. (1997) Socioeconomic determinants of health. Health inequalities: relative or absolute material standards? *British Medical Journal*, **314**, 591-595.

Wilkinson, R.G. and Pickett, K.E. (2006) Income inequality and population health: a review and explanation of the evidence. *Social Science & Medicine*, **62**, 1768-1784.

Wilkinson, R.G. and Pickett, K.E. (2007) The problems of relative deprivation: why some societies do better than others. *Social Science & Medicine*, **65**, 1965-1978.

Wright, E.B., Holcombe, C. and Salmon, P. (2004) Doctor’s communication of trust, care, and respect in breast cancer: qualitative study. *British Medical Journal*, **328**.