Addressing the action gap between intention and actual behaviour, within the context of organic food purchases.

Silvia Zuur & Nikolai Fuchs
silvia.zuur@goetheanum.ch
nikolai.fuchs@goetheanum.ch
Agriculture Section, Goetheanum
Dornach, Switzerland
June 2010

Abstract

The action gap within organic consumers has been previously identified - on average 50% of consumers say they buy organic products, but in reality only 15% buy what they say (Niessen & Hamm, 2008). The literature provides limited guidance as to the reasons for a consumer behavioural gap (apart from price and availability) and possibilities to bridge it. The aim of the current study was to understand the aspects that influence food purchasing behaviour within a population of people already familiar with organics; and to begin to address the action gap between intention and actual behaviour through identifying internal and external causes and influences. The study involved a survey of 2,741 consumers in German and English speaking international food awareness networks. Results suggested that price and availability are not straight forward drivers of the action gap - about 50% do not find money a barrier to purchasing organics and 60% do not consider purchasing organics to require more effort. Results also found that 33% of consumers who act of a 'personal' concern were incidental organic consumers (consumed less half their food as organic) and 77% of consumers who act of a 'world' concern were regular consumers. This suggests that moving consumer behaviour away from 'personal' concern to 'world' concerns will increase overall consumption of organics. The importance of considering inner aspects (such as out of which concern do people act) when looking at reasons for the action gap and ways to bridge it, was also identified. To increase the organic food market and close the consumer action gap we need to create a climate where consumer behaviour can move from a personal concern to a world concern. Research needs to focus on inner influences - such as consumer initiative and motivation.

Introduction

Organic Food products

Is there a difference in growing techniques and environmental impacts of organic and conventional farming practices? A scan of the literature suggests that organic farming practices show benefits in biodiversity, soil quality and offer a lower energy input alternative (for example Pimentel et al. 2005).

The food products which come from organic farming productions provide a positive alternative for consumers:

> *"Any attempt to answer the question 'is organic food better for you?' requires an assessment of the safety, nutritional content and biological value aspects of food quality. Previous reviews have been unable to reach definitive conclusions after failing to ensure only valid comparisons are considered. When methodologically flawed studies are screened out and a complete assessment of nutritional quality is made, collectively, the available evidence supports the hypothesis that organically produced food is superior in terms of safety, nutritional content and nutritional value to that produced non-organically."* Heaton (2001).

The current paper will not debate the difference in agricultural methods or nutritional values, but move from the assumption that organic products provide a positive alternative choice for consumers.

Consumer Action gap

Niessen & Hamm (2008) compared actual organic buying behaviour with stated buying behaviour, and suggested that there is a large gap. This gap has also been identified by Lockie et al. (2002), where in their conclusion they state that: *"Concern about the industrialisation of food is clearly very mainstream. But translating this concern into consumption behaviour is not a straightforward process."*

Organic food products provide a safe, nutritional alternative for consumers (Heaton, 2001), and consumers judge then positively (Zanoli & Naspetti, 2002), yet transforming a stated concern or intention into actual behaviour becomes an action gap (Niessen & Hamm, 2008).

Price and availability (Lockie, *et al.* 2002; Lucas *et al*, 2008) and other outer influences have been suggested as reasons for the action gap, yet there remains a literature gap in terms of inner reasons (for example emotions as identified by Aertsens et al, 2009) and suggestions on how to bridge the action gap.

Taking into account that organic products provide a positive alternative which may wish to be encouraged, and that consumers identify that they would buy these products, but then in fact don't, the current study will consider the action gap between intention and actual behaviour, within the context of organic food purchases.

Specific hypotheses were developed for each survey questions (See Appendix 2.), and an overall aim for this research was to investigate the following aspects relating to consumer purchasing behaviour:

- Price and availability
- Inner factors - such as health and taste and the influence out of which concern a consumer acts
- External motivating factors - such as more knowledge and practical experience

Method

Objectives

The objectives of the survey were:

1. To identify respondents familiarity with organics.
2. To differentiate between incidental and regular organic customers.
3. To determine if cost or availability are barriers to desired purchasing behaviour
4. To determine what factors are motivators to desired purchasing behaviour.
5. To identify where purchase behaviour mainly comes from - do consumers act out of personal (eg health) or world (eg care for the environment) concerns.
6. To understand if purchase behaviour is driven by outer (public pressure) or inner (own initiative) reasons.
7. To establish if consumers experience a conflict between their wishes and reality.
8. To see if there is a desire for alternative behaviour
9. To investigate whether empowering motivation may create a bridge to cross the organic food purchasing action gap.
10. To determine if consumers think that nutrition from Biodynamic food influences the will.

Reasons for survey

See Appendix 1. for the survey and Appendix 2. for reasons for survey questions. The survey style and questions were developed through researching various food choices measuring methods (for example Food Choice Questionnaire, Steptoe, Pollard & Wardle, 1995; Lockie, et al., 2002), preliminary research in the form of a Focus group (see Appendix 3.) and Customer Assisted Shopping (see

Appendix 4.), personal reflection and research, and holding an aim to address the action gap between intention and actual behaviour, within the context of organic food purchases.

The third person perception method was originally only used, as a projective technique method as researched by Boddy (2005) and Donoghue (2000). Yet preliminary research suggested the need to give the options of answering for one's self or for a friend.

Description of questions (For details see Appendix 2)
The survey had 12 question items and descriptive data items - and asked either Y/N questions or agreement on a Likert Agreement scale.
The questions were developed in English and translated into German, and were entered into Survey Monkey (www.surveymonkey.com).

Process of receiving respondents
The survey was open from 20th April till 16th May 2010. There were two separate surveys (English and German) and within each survey various collectors (one collector for each network). Each collector had its own web address. Various food awareness network organisations in English and German speaking countries were approached and asked to either put the survey on their website or within their electronic newsletters. The organisations were researched though personal contacts or though bring found on the internet. The following networks took part in the research:

Organisation	**Language**	**Background**	**Respondents**
FoodWatch www.foodwatch.de	German	Food awareness network organisation based in Germany.	1,730
Konsumenten Verband www.konsumentenverband.ch	German	Consumer Association of Switzerland made up of regional associations, and also supporting Biodynamic Agriculture.	39
Bio Company www.biocompany.de	German	Online organic supermarket based in Germany	3
Biodynamische Verbraucher	German	Consumer associations concentrating on supporting Biodynamic agriculture	101
Biodynamic Association UK	English	United Kingdom branch of the Biodynamic Association	5
Organic Consumer Association www.organicconsumers.org	English	American online Organic Consumers Association as a public interest organisation campaigning for health, justice, and sustainability.	838
YouthSection www.youthsection.org	English	International youth network supporting young people (18-35ish) to explore their relationship to the world.	14
Organic Agriculture Centre www.organicagcentre.ca	English	Canada Organic Agriculture Centre conducting organic farming research and providing knowledge transfer and extension services for organic farmers.	11

Analytical method.
Results were downloaded from Survey Monkey into Excel within three categories – English, German and combined. It was therefore possible to compare and analyse overall language differences, network differences, and also overall combined results.

Results

The results will be presented as follows:

1. Nature of data – Descriptives
2. Survey - Question results
   Results of specific survey questions presented under the general objectives
3. Survey – cross tabbed results with:
   a. Proportion of food consumed – what influences the proportion of organic food purchase?
   b. Impact of concern – how does the concern out of which people act influence their behaviour?

1. Descriptive Data

See Appendix 4 for table of descriptive data.

3,250 people began the survey to some extent and 2,741 completed it. This gave an 84% completion rate. All analysed figures will be based off fully completed surveys.
The following summarises the sample:

- 1,873 respondents were from German networks and 868 from English networks.
- 1067 (39%) of the respondents were male and 1,674 (61%) female. The German network had a more even proportion of male-female ratio (46% male, 54% female), while the English network (specifically the Organic Consumer Association network) had a larger proportion of females (22% male, 78% female).
- Almost 50% of the respondents were between the age of 35 and 54 years.
- 56% of respondents had children.
- Highest education - 15% high school, 35% diploma, 16% bachelor, 28% masters, 5% doctorate

Respondents were given the choice to answer for themselves or for a friend - 97% answered for them self and 3% for friends. Respondent feedback had suggested that there could have been confusion about the choice of the third person technique option, (answering for self or friend option) – but 84% of people who started the survey finished it, suggesting that it was not too complicated to put people off.

2. Survey - Question Results

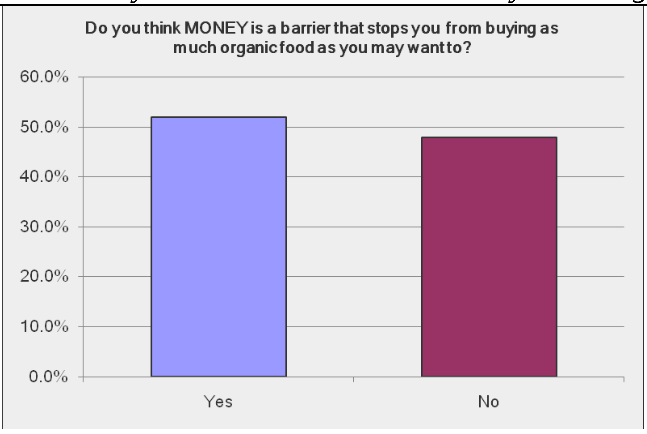
The following results are answers to survey questions under the question objectives (for compiled English and German, from all networks). Please note rating average results are from a scale where 5=Strongly agree, 4=Agree, 3=Neither, 2=Disagree, 1=Strongly disagree.

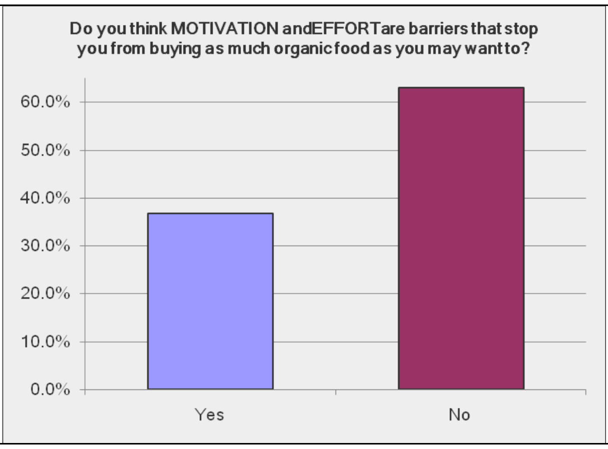
1. To identify respondents’ familiarity with organics.
99.6% of respondents (who are all members of food awareness networks) were familiar with organic. Only 0.4% of respondents were unfamiliar with organics and 0.4% purchases no organic food – which could suggest they were the same respondents.

2. To differentiate between incidental and regular organic customers.
70% of respondents purchase half or more of their food as organic. They can be considered regular organic consumers. The rest (30%) will be considered incidental consumers.

3. To determine if cost or availability are barriers to desired purchasing behaviour.
52% of people consider cost a barrier to purchasing more organic food, 48% do not consider money an

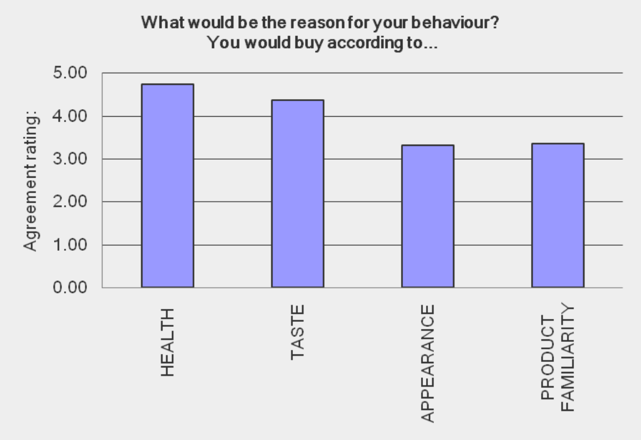
issue. 63% do not consider that organics require more effort and motivation. When price and availability are excluded 78% would buy more organics.





4. To determine what factors are motivators to desired purchasing behaviour.

Health/nutrition was identified as the most important aspect (with a rating average of 4.74), taste was next in importance with 4.37, and appearance (3.33) and product familiarity (3.36) showing neither importance nor unimportance.



5. To identify where purchase behaviour mainly comes from - do consumers act out of personal (e.g. health) or world (e.g. care for the environment) concern.

66% of people mainly act out of a personal concern and 34% of people mainly act out of a world concern.

6. To see if there is a desire for alternative behaviour.

Consumers who mainly act out of a world concern were extremely significantly more likely to wish for alternative behaviour - to act more in line with their world concern (M4.2; SD.89) compared to consumers who mainly act of a personal concern (M3.71;1.08). t(2741)=12.28, p<.0001

7. To understand if purchase behaviour comes from outer (public pressure) or inner (own initiative) reasons.

Consumers stated that they act out of their own initiative (world concern 4.76, personal concern 4.6, total M4.6; SD.62) and not due to public pressure or image (world concern 1.99, personal concern 1.90, total M1.92; SD.94). t(3998)=106.23, p<.0001

8. To establish if consumers experience a conflict between their wishes and reality.

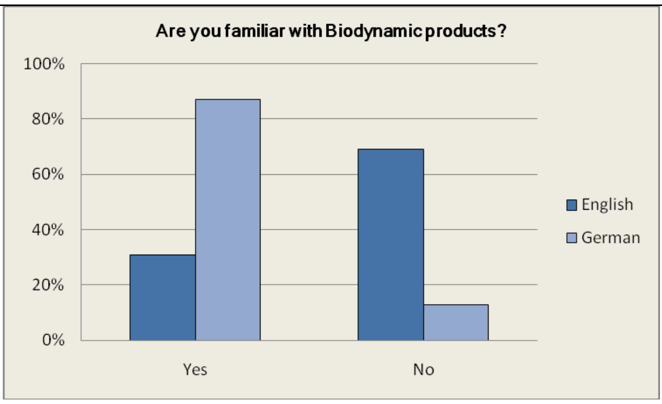
Consumers did not agree that they experienced a conflict between their wishes and reality (world concern 2.89, personal concern 2.63).

9. To investigate what might empower motivation to create a bridge and cross the organic food purchasing action gap.

Five options (excluding price and availability) were given as suggestions to empower motivation – all aspects scored between agree or neither. Habits (3.72), practical experience (3.69), social

responsibility (3.81), future appreciation (3.91), knowledge (3.93), health (3.97).

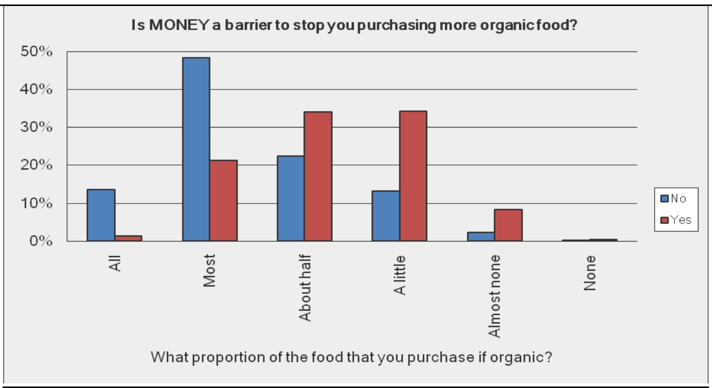
<table>
<tr><td>10. To determine if consumers think that nutrition from Biodynamic food influences the will.
69% of respondents were familiar with Biodynamics – of those 35% considered consuming Biodynamics to influence the will, while 65% considered there to be no influence.

Significantly more consumers in the German sample (M1.13;SD.34) were familiar with Biodynamics, compared to the English sample. (M1.69;SD.46). (See Figure 11.) t(2733)=36.01, p<.0001</td><td></td></tr>
</table>

3. Survey - Cross tabbed results

3.a) Proportion of food consumed – what influences the proportion of organic food purchase?

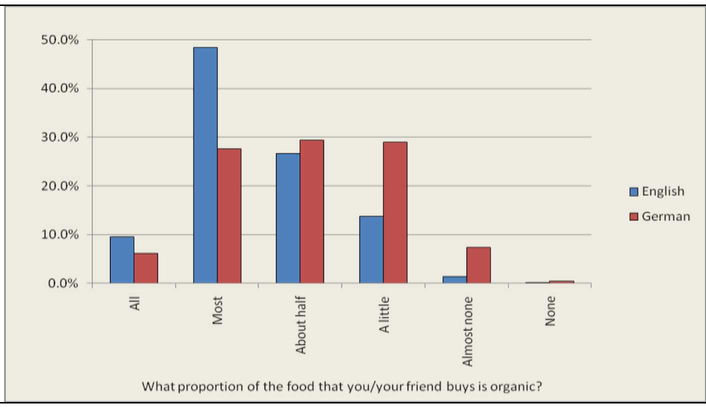
The following results are various questions cross tabbed (compared with) with Question 2: *"What proportion of the food that you/your friend buys is organic?"* = All, Most, About half, A little, Almost none, None.

<table>
<tr><td><u>Figure 1: The proportion of organic food purchased compared to if money is a purchasing hindrance (Y/N)</u>
Consumers who do not find cost a barrier also purchase more organic food.</td><td></td></tr>
<tr><td colspan="2">48% of consumers who said that money is no issue, also bought most of their purchases as organic. This shows that 85% of consumers who said money was no barrier then bought more than half of their food as organic (regular consumers), compared to 57% of consumers who said that money was a barrier and bought more than half of their food organic (incidental consumers). For consumers who can be considered incidental consumers (bought less than half) – 43% of them thought money was an issue, 15% of them thought money was no issue.</td></tr>
</table>

There were no obvious trend between the proportions of organic products that consumers bought and whether they had children or what their education level was.

The proportion of organic food purchased compared to language speaking network

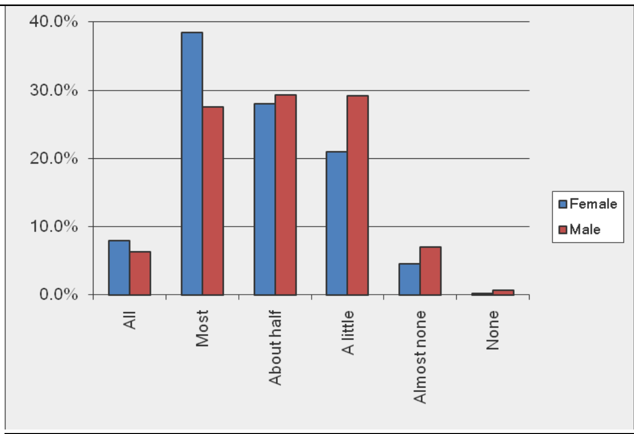
The English speaking networks purchased more organic food compared to the German ones.



A similar trend was seen between continents - North Americans buy more organic food compared to Europeans. There were insufficient responses outside of Europe and North America to consider comparisons of all continents - 1% from South America, Asia and Australasia and none from Africa.

The proportion of organic food purchased compared to Gender

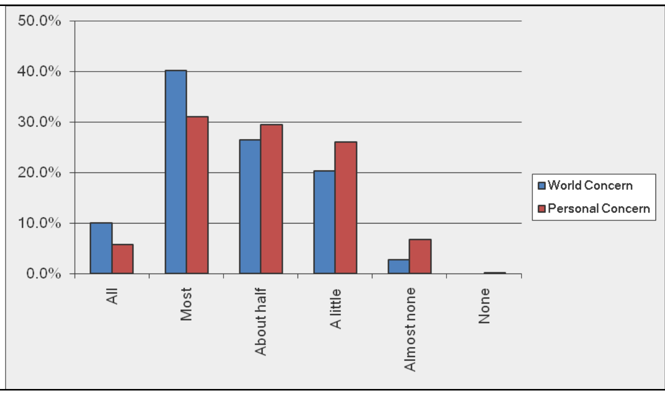
Females are more likely to buy mostly organic food.



75% of females can be considered regular consumers (purchasing more than half of their food as organic), compared to 63% of males. 37% of males are incidental purchasers compared to 25% of females.

The proportion of organic food purchased compared to if acting out of world or personal concern

Consumers who act out of a world concern were more likely to purchase more organic food.



77% of consumers that act of a world concern were regular consumers. 67% of consumers that act out of a personal concern were regular consumers.

33% of consumers that act of a personal concern were incidental organic consumers. 23% of consumers that act of a world concern were incidental consumers.

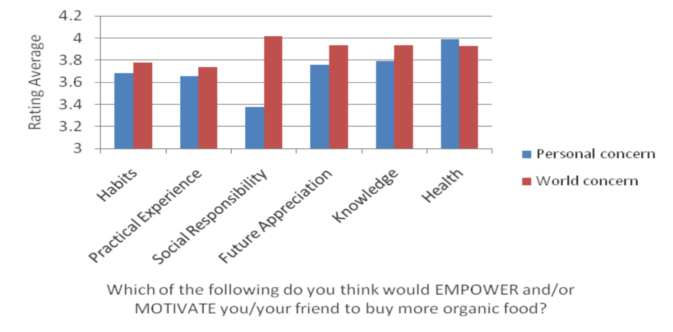
3.b) Impact of concern – how does the concern out of which people mainly act influence their behaviour?

The following results various questions cross tabbed with Question 7: *"People can make purchases out of PERSONAL CONCERNS (such as health) or WORLD CONCERNS (such as caring for the environment) - Out of which concern do you think you/your friend mainly acts?"* Personal Concern, World Concern

As previously described, consumers who act of a world concern purchase more organic food compared to those who act of a personal concern.

<u>Figure 1. Concern compared to aspects to empower motivation</u>

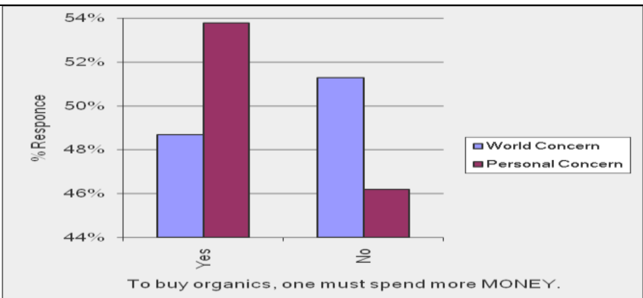
Consumers that act out of a world concern consider internal drivers to empower motivation.



No real difference appeared between the drivers to empower motivation when looking at the complete sample, but when concern was taken into account, a clear difference in opinion appeared. Those who purchase organic products out of a world concern were more likely to agree that “Increasing my/their sense of SOCIAL RESPONSIBILITY” would empower motivation to purchase more organic food. Although less of a difference, people who act of a world concern were also more likely to think that “Strengthening my/their APPRECIATION for the future of the WORLD and ENVIRONMENT” would also increase motivation. The only option which people who acted out of a personal concern agreed with more strongly than those acting out of a world concern was “Better understanding of HEALTH benefits.”

<u>Figure 2. Concern compared to money as a hindrance</u>

Consumers who mainly act of a personal concern are more likely to consider money as a hindrance to purchasing more organic food.



54% of people who act out of a personal concern consider Money a hindrance to purchasing more organic food.

The following shows the differences in opinions between consumers who act out of personal or a world concern:

Own initiative - I think I/my friend act out of a world/personal concern because of my/their... own initiative.

Personal Concern – own initiative M=4.72, SD=.52

World Concern – own initiative M= 4.85, SD=.63

Extremely Significantly different: $t(2741)=5.96$, $p<0.0001$

Consumers who act of a personal concern agree more strongly that that they act from their own initiative rather than from external pressure (such as advertising or public image).

Public Image - I think I/my friend act out of a world/personal concern because of my/their... public image.

Personal Concern – public image M= 1.91, SD=.93

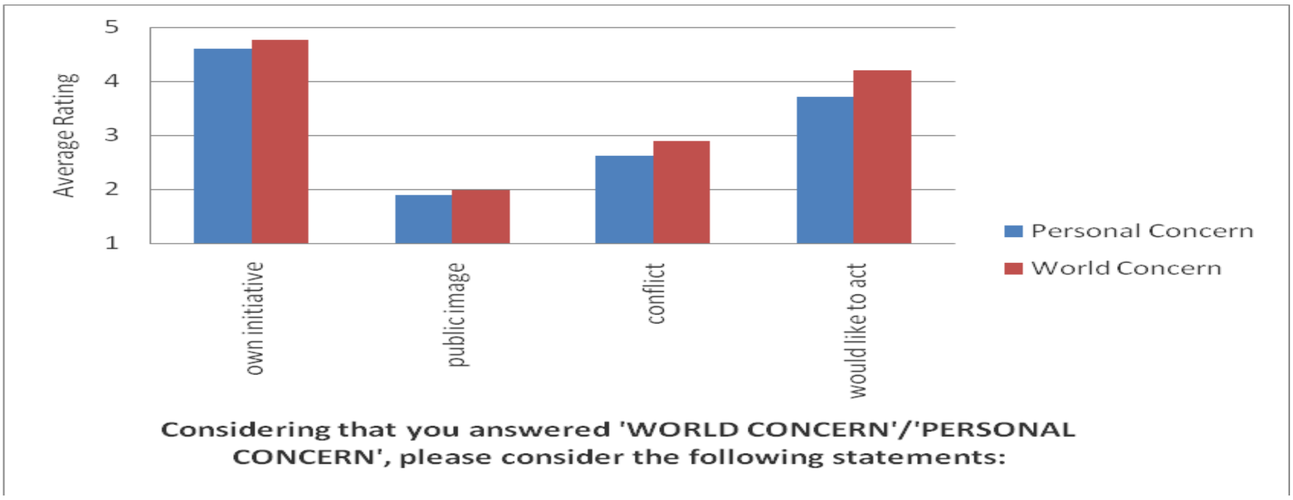
World Concern – public image M=1.99, SD=.99

Significant difference $t(2741)=2.2$ $p=0.0281$

Consumers who act out of personal concern disagree more strongly that the reasons for their actions are due to their public image.

Conflict - I think I/my friend experience a conflict between what I/they wish to do and what I/they do in reality.
Personal Concern – conflict between wishes and reality M=2.69, SD=1.17
World Concern – conflict between wishes and reality M=2.98, SD=1.21
Extremely Significantly different: $t(2741)=6.12$ $p<0.0001$
Consumers who act of a personal concern disagree more strongly that they experience a conflict between their wishes and reality.

Would like to act - I think I/my friend would like to act more in accordance with my/their world/personal concern.
Personal Concern – would like to act more with personal concern M=3.71, SD=1.08
World Concern – would like to act more with world concern M=4.21, SD=.89
Extremely Significantly different: $t(2741)=12.27$ $p<0.0001$
Consumers who act out of a world concern agree more strongly that they would like to act more in line with their concern.



Discussion

It is a common belief that price and availability are the reasons behind an action gap between the intention and action of purchasing organic food. However, there is more to consumer purchasing behaviour than this. One must consider not only price and availability, but also the inner reasons for purchasing behaviour – out of which concern do people mainly act, what motivates them, what reasons are behind their behaviour? This research has begun to answer these questions – through asking about world and personal concerns, through asking what empowers motivation, and by looking if behaviour comes from own initiative or public image.

The following will be covered in this discussion: the hypothesis for the questions will be accepted or rejected; the objectives will be answered, expanded and discussed; implications and limitations suggested, and future research recommended.

<u>Survey Question Hypotheses</u>
Hypothesis: Consumers do not purchase organics because it requires more money.

- Neither accepted nor rejected - the results suggested an almost 50% split.

Hypothesis: Consumers do not purchase organics because it requires more effort.

- Rejected - 63% of consumers do not consider that organics requires more motivation and effort.

Hypothesis: Purchase behaviour will change when Price and Availability are excluded.

- Accepted – 78% of consumers would buy more organics when price and availability are excluded.

Hypothesis: The reason for purchase behaviour will be due to Health and Taste (internal concerns).

- Accepted – Health and taste were more strongly agreed to as reasons for purchasing behaviour

Hypothesis: Consumers who act out of personal concern will do so due to their own initiative.

- Accepted - Consumers who act of a personal concern agree more strongly that it is from their own initiative.

Hypothesis: Consumers who act out of world concern will do so due to their public image.

- Neither accepted nor rejected – Neither group (personal or world concern) agreed that they acted due to their pubic image. Though consumers who act out of world concern disagreed less strongly that the reasons for their actions were due to their public image.

Hypothesis: Those who act of a world concern will experience a higher conflict between their wishes and reality.

- Neither accepted nor rejected – Neither concern agreed that they experienced a conflict between their wishes and reality. Though consumers who act of a world concern disagree less strongly that they experienced a conflict between their wishes and reality.

Hypothesis: Those who act of a world concern will more strongly wish to act more in accordance with their world concern.

- Accepted - Consumers who act out of a world concern agreed more strongly that they would like to act more in line with their concern.

Hypothesis: Internal aspects (habits, social responsibility, appreciation) will empower motivation

- Neither rejected nor accepted – when the whole sample was considered, future appreciation (3.91), knowledge (3.93) and health (3.97) scored the highest agreement compared to habits (3.72), practical experience (3.69), social responsibility (3.81), yet there was not much of a range. When concern was added, a larger variety of opinions to empower motivation appeared. This suggests a clear need for further research – consumers do not consider huge differences between factors that could empower motivation, though this can vary between people when their concern for their action is taken into account.

<u>Discussion of results within Question Objectives</u>

1. ***To identify respondents familiarity with organics.***
2. ***To differentiate between incidental and regular organic customers.***

The high number of respondents for this survey is important to note, food awareness groups are vital networks of people who already hold broad food awareness and are familiar with organics (99%). This group of people provide us with an important cohort of aware consumers, who are large organic consumers (70% are regular consumers), this clearly differs to a random population sample - for example Lockie, et al. (2002) found that 20% of a random Australian sample were regular consumers of organic produce.

3. ***To determine if cost or availability are barriers to desired purchasing behaviour***

Lockie, et al. (2002) found that for organic consumers (such as could be comparable to this sample), price and health were important considerations for food choice. The current results suggest that while organic consumers may take price into consideration, only 50% find price a hindrance. This figure is of importance to note – it could be considered low because price is so often given as a reason for reduced behaviour, and yet considering that this sample was of people with an already high food awareness, it could be considered quite high.

Lucas, et al. (2008) suggested that people give higher price and reduced availability as reasons not to consume organic food products. They also showed that consumers of organic products gave the same reasons as attributes when considering which shop to purchase in. Considering that the current study shows that half of this sample does not find motivation or effort a barrier to purchasing organic food, one must question if availability is such an issue, once a consumer has made the choice to purchase organics. It may be that people who do not already consume organics, cannot be bothered the extra effort to find and buy organics, but it is clear that people who are aware of food issue, do not mind the extra effort.

4. To determine what personal factors are motivators to desired purchasing behaviour.

Lockie, et al. (2002) suggested that across all samples health is the most important motivating personal factor behind food choice, this survey has confirmed this (Health highest agreement rating of 4.47 compared to taste (4.37), appearance (3.33) and product familiarity (3.36)).

The reasons/motives to buy organic food mirror those from Zakowska-Biemans (2009) in 2005:

Average on a Likert Scale: Zakowska-Biemans (2009) = Importance, Current Study = Agreement.

	Zakowska-Biemans (2009):	Current Study:
Health	4.86	4.74
Taste	4.4	4.37
Appearance	3.8	3.33

5. To identify where purchase behaviour mainly comes from - do consumers act out of personal (eg health) or world (eg care for the environment) concerns.

The literature review performed by Lucas et al (2008) showed that: "*Occasional buyers are motivated more by hedonistic (ie taste) and health reasons, while regular buyers stress more the positive environmental effects…"*

And Shepherd, Magnusson & Sjöden, (2005) state that *"The two most commonly stated motives for purchasing organic food are, first, concerns for one's health, followed by concerns for the environment... Health is a more important purchase motive for incidental customers than for heavy buyers, whereas heavy buyers bought organic foods for health as well as environmental reasons"*

The current study confirms both these statements. 33% of consumers that mainly act of a personal concern were incidental organic consumers and 77% of consumers that mainly act out of a world concern were regular consumers. This stresses the importance of moving consumer behaviour through a personal concern to a world concerns in order to increase overall consumption of organics.

6. To see if there is a desire for alternative behaviour.

Niessen and Hamm, (2008) identify the consumer action gap in terms of people saying something and then not following through with their actions. The current research identified that there is often a wish to act in an alternative behaviour. Therefore people might say that they buy a certain amount of organic food, but then reality might hit and even though they wish for that behaviour they are unable to achieve it. Consumers responded that should price and availability be excluded they would buy more organic food, indicating that these two factors are issues. Yet consumers also responded that organic food does not require more motivation, and 50% responded that money is not an issue. This is clearly an area that needs further research. Price and availability are not the only reasons for the action gap, but they are important because they limit behavioural changes.

When consumers were directly asked if they experienced a conflict between their wishes and reality, few strongly disagreed. It is also of interest that consumers who act out of a world concern disagreed less strongly (compared to those that mainly acted out of a personal concern) to experiencing a conflict between their wishes and reality.

7. ***To understand if purchase behaviour is driven by outer (public pressure) or inner (own initiative) reasons.***

These results show very clearly that consumers do not consider that they are acting due to outer pressure. This clearly indicates, for example, the direction that marketing needs to take to enhance organic purchases. When these results are combined with the finding that knowledge does not significantly motivate people, a picture is created that changing purchase behaviour needs to focus on internal issues.

Consumers on average are not interested in changing their eating habits due to outer recommendations (Agra-Europe, 2006b), which in some form is confirmed by these results. Yet an aspect which this research did not cover is to ask what made the consumer join the food awareness network, how did they get informed in the first place. This is an area for further research.

8. ***To establish if consumers experience a conflict between their wishes and reality.***

When asked in the current survey about experiencing a conflict between wishes and reality, consumers did not admit to experiencing it. However 78% acknowledged that they would buy more organic food if cost and availabilty were not considered, therefore does cost and avaliablity appear as something which creates a confict between wishes and reality. Yet this may be approaching the limits of the survey. This question is a very personal one, and the limitation of a survey needs to be acknowledged. It is an area where interviews and indirect questioning methods could be a focus for future research.

9. ***To investigate what might empower motivation to create a bridge and cross the organic food purchasing action gap.***

It is important to note that there was no difference between the five options which were given as suggestions to empower motivation to purchase more organic food (Question 9). This could suggest that all five aspects are of equal significance. Or it could also be suggested that there are options which were not asked and which are more significant in changing behaviour.

One other consideration to make is that the sample already purchased a large proportion of organic food, and perhaps considered this question insignificant as they consider themselves to already be motivated organic consumers. For example some respondents answered the following in the option of commenting to this question:

"I can't buy MORE organic if I already buy 100% organic!"
"I already have all of this. I buy all the organic options available to me."
"It is hard for me to answer these questions because I already buy organic."
"I already buy as much as possible"
"I already am aware of the above factors and buy organic when available so don't need further motivation."

This suggests a clear need for further research to differentiate the options which empower motivation, and to extend the field of research and ask these questions to consumer that are not a part of food awareness networks.

10. ***To determine if consumers think that nutrition from Biodynamic food influences the will.***

It is significant for the BD industry to note that 69% of respondents were familiar with Biodynamics. Yet of greater interest is the difference between the German and English speaking networks. Generally across all the questions the networks were similar opinions and responses – yet there is a clear difference in terms of BD familiarity. This clearly shows a need for more research into how to bring the BD market into English speaking countries.

To ask consumers whether BD food products influences ones will, is not something which has ever been asked before (yet it has been indicated by Steiner, 1958, that nutrition influences the will). There is currently no significant scientific literature in this field. The final question in this survey was an attempt to asses if this is an area where future research could expand into. Considering that 35% (669 respondents) of consumers who were familiar with BD products stated that yes there was some influence, the suggestion must be made that this could be an area of future research.

Implications (Application)

These results show that currently, in total, more consumers act out of a personal concern (66% of total respondents), but that consumers who act of a world concern buy more organics. Therefore to encourage informed consumers to consume more organics, and bridge the action gap, we need to move people who act out personal concern to act of a world concern. Yet we have also seen that these consumers claim they are not influenced from external sources.

These results have significant implication for organic food marketing – consumers do not need more information and do not act due to their public image.

The organic food product market has two key players – the consumers and the providers. These results give indications of changes within both these areas:

- Consumers do not act because of their public image; they act out of their own initiative. Therefore marketing needs to question its approaches – how does one change the culture of purchasing and reach the inner initiative.
- Considering that consumers do not consider organics to require more motivation, but that they would change their behaviour if price and availability were not issue, suggests that suppliers (and researchers) need to focus on price and availability.

Limitations

With Survey

- There is a chance of respondent confusion of the wording of the survey, in term of answering for you/your friend (especially in the German language). Yet 84% of people who started it finished it, so it did not discourage too many people to make them stop.
- There may have been different understandings of the definition ‘world’ and ‘personal’ concern. Respondent feedback also suggested that they did not like having to choose out of which concern they mainly acted. “My real answer is both - motivated by world and personal concerns, they go hand in hand.” “BTW, having only the choices personal OR world in the last question wasn't fair--why not BOTH!!!”
- No specific definition of organics was given at the beginning, and as people can be confused by what organics actually defines (Aarset et al, 2004), respondents may have unaware incorrectly answered some questions, though considering this was a sample of food awareness network the extent of this problem may not have been too large.
- The samples were not evenly distributed, with the majority of respondents from German speaking networks.

Areas for future research

The following is suggested for future research:

- One of the limitations of this sample is that it is from food awareness networks. Therefore it is of high interest to see how these results would compare to a random population sample. What is the difference in opinions and experiences of food aware consumers and the general population?
- Personal interview understanding the conflict between wishes and reality
- Look into the difference of understanding of BD products between German and English speaking networks, and the influence that BD nutrition has on the will

- Understand the wider implications that acting out of a world or personal concern have
- Take the five aspects given to empower motivation and apply them practically in the world
- Research other aspects that could empower motivation
- Understand more fully the impact of price and money, only 50% consider it an issue.

Conclusion

To increase the organic food market and close the consumer action gap we need to create a climate where consumer behaviour can move from a personal concern to a world concern. Research needs to focus on inner influences - such as consumer initiative and motivation.

Acknowledgements

To Dr. Ulrich Hamm (Professor in the department of agriculture and food marketing at Kassel University, Germany) and Dr. Marc Wilson (Senior lecturer in Psychology at Victoria University of Wellington, NZ) - for offering their professional advice in their respective fields.

To the Goetheanum for providing the scholarship which enabled this research, to the organic networks who distributed this survey, and to the Agriculture Section and the YouthSection, for giving me the space and time to live with these questions.

References

Aarset et al, (2004). The European consumers' understanding and perceptions of the "organic" food regime: The case of aquaculture. *British Food Journal,* 106:2.

Aertsen, J. et al. (2009). Personal determinants of organic food consumption: a review. *British Food Journal*, 1140-1167, 111:10

Boddy, C (2005). Projective techniques in market research: valueless subjectivity or insightful reality? *International journal of Market Research.* 47:3.

Donoghue, S (2000). Projective techniques in consumer research. *Journal of Family Ecology and Consumer Sciences*, 28.

Heaton S. (2001). Organic farming, food quality and human health: A review of the evidence. Soil Association of the United Kingdom.

Lockie, G., Lyons, K., Lawrence, G. & Mummery, K. (2002). Eating 'green': Motivations behind organic food consumption in Australia. *European Society for Rural Sociology,* 42(1):23-40.

Niessen, J. & Hamm, U. (2008). Identifying the gap between stated and actual buying behaviour on organic products based on consumer panel data. *Cultivating the Future Based on Science: 2nd Conference of the International Society of Organic Agriculture Research ISOFAR,* Modena, Italy, June 18-20, 2008.

Pimentel, D., Hepperly, P., Hanson, J., Douds, D.& Seidel, R. (2005). Environmental, energetic, and economic comparisons of organic and conventional farming systems. *BioScience*, 55(7):573–582.

Steptoe, A., Pollard, T. & Wardle, J. (1995). Development of a measure of the motives underlying the selection of food: the food choice questionnaire. *Appetite*, 25:267–284.

Steiner, R. (1958). *Agriculture Course.* Rudolf Steiner Press, Forest row, United Kingdom.

Wegner, D. M. (2008). T*he self is magic.* Chapter 11. in *Are we free? Psychology of free will.* Oxford University Press.

Zanoli, R. & Naspetti, S. (2002). Consumer motivations in the purchase of organic food: A means-end approach. *British Food Journal***,** 104(8):643 – 653.

Zakowska-Biemans (2009). Factors underlying consumption of organic food in the opinion of Polish consumers. *Agronomy Research,* 7(II):768-774.

Appendix 1: Questions About Food Choices

Thank you for taking the time to answer the following 12 questions about food choices. All your answers will be anonymous and complied confidentially.
For this survey the following definition has been made - 'Organic' is food which has been labeled 'organic.'
For this survey you have a choice:
Either answer ALL the questions about YOURSELF
-or-
Answer ALL the questions in terms of ONE VERY CLOSE FRIEND (for example your flatmate, partner or best friend). You will need to think of one specific person and be familiar with his/her food purchasing.

1. Are you/your friend familiar with organic food?

- ❑ Yes
- ❑ No

2. What proportion of the food that you/your friend buys is organic?

- ❑ All
- ❑ Most
- ❑ About half
- ❑ A little
- ❑ Almost none
- ❑ None

3. Organic food is often considered more expensive, and food from conventional production is often cheaper. Therefore to buy organics, one must spend more MONEY.
Do you think that this is a hindrance that you/your friend experiences, and therefore stops you/them from buying as much organic food as you/they may want to?

- ❑ Yes
- ❑ No

4. Organic food is often considered difficult to purchase, and food from conventional production is often more convenient. Therefore to buy organics, one must have more MOTIVATION AND EFFORT.
Do you think that this is a hindrance that you/your friend experiences, and therefore stops you/them from buying as much organic food as you/they may want to?

- ❑ Yes
- ❑ No

Consider you/your friend standing in a supermarket and you/they have the option of buying any food product of your/their choice. None of the products are considered too expensive and you/they have unlimited choice.

5. Do you think you/they would buy more or less organic food compared to normal?

- ❑ More
- ❑ The same as normal
- ❑ Less

6. What would be the reason for your/their behaviour? You/they would (Please tick how you feel about the statement – one tick per category)....

	Strongly Agree	Agree	Neither	Disagree	Strongly Disagree
Buy according to HEALTH/NUTRITION					
Buy according to TASTE preference					
Buy the product with the best APPEARENCE					
Buy what I/they normally buy - PRODUCT FAMILIARITY					
Other.....................................					

People can make purchases out of PERSONAL CONCERNS (such as health) or WORLD CONCERNS (such as caring for the environment).

7. Out of which concern do you think you/your friend mainly acts?

❑ Personal Concern

❑ World Concern

8. If you answered 'WORLD CONCERN', please consider the following statements:

	Strongly Agree	Agree	Neither	Disagree	Strongly Disagree
I think I/my friend act out of a world concern because of my/their... own initiative.					
I think I/my friend act out of a world concern because of my/their... public image.					
I think I/my friend experience a conflict between what I/they wish to do and what I/they do in reality.					
I think I/my friend would like to act more in accordance with my/their world concern.					

9. If you answered 'PERSONAL CONCERN' please consider the following statements:

	Strongly Agree	Agree	Neither	Disagree	Strongly Disagree
I think I/my friend act out of a personal concern because of my/their... own initiative.					
I think I/my friend act out of a personal concern because of my/their... public image.					
I think I/my friend experience a conflict between what I/they wish to do and what I/they do in reality.					
I think I/my friend would like to act more in accordance with my/their personal concern.					
I think I/my friend would like to act more in accordance with a world concern.					

10. Which of the following do you think would EMPOWER your/your friends MOTIVATION to buy more organic food (if you/they wanted to)? (Please tick importance – one tick per category):

	Strongly Agree	Agree	Neither	Disagree	Strongly Disagree
Becoming aware of my/their personal HABITS					
PRACTICAL EXPERIENCE of organic agriculture					
Increasing my/their sense of SOCIAL RESPONSIBILITY					
Strengthening my/their APPRECIATION for the future of the WORLD and ENVIRONMENT					
More KNOWLEDGE about organic products and agriculture					
Better understanding of HEALTH benefits					

11.Are you/your friend familiar with Biodynamic Products (food which has been labeled with 'Demeter')?

❑ Yes

❑ No

12. If you answered 'YES' to Question 11, please answer the following question:
Taking into account the questions that you have just answered – do you think that consuming Biodynamic Products influences your/your friends 'will' to purchase more organic/biodynamic food?

❑ Yes

❑ No

I answered all the questions about:

❑Myself

❑ A friend

Please provide the following details about YOURSELF – please circle:

Gender: M; F
Age: 18-24; 25-34; 35-44; 45-54; 55-64; 65+
Where do you come from? Europe; North America; South America; Africa; Asia; Australasia
Children? Y; N
Highest Education: High School; Diploma; Bachelor; Masters; Doctorate
If you would like to receive the results from this survey, please provide your email:

Thank you for taking the time to answer the questions in this survey. They have been created by Silvia Zuur, in partnership with Nikolai Fuchs, within the Agricultural Section at the Goetheanum in Dornach, Switzerland. All raw data will be seen by only these two people. Any published or shared results/data, will not be traceable back to you. Should you require any further information or are interested in the results please email silvia.zuur@goetheanum.ch

Appendix 2: Reasons for Questions

Question 1 – To identify respondents familiarity with organics.
To confirm that respondents are familiar with organics.

Question 2 - To differentiate between incidental and regular organic customers.
The first question is to gain purchase behavioural data, based on the format used by Lockie et al. (2002). This will provide a basis for analysis of other questions – especially question 7.

Question 3 & 4 - To differentiate between incidental and regular organic customers. To determine what personal factors are motivators to desired purchasing behaviour.
Price (Lockie, *et al*. 2002) and Availability (Lucas *et al*, 2008) have been identified as issues in the 'action gap' (Plassman & Hamm, 2009). These questions address these topics specifically, with the aim to provide a basis for acknowledgement that these aspects are influential.
Hypothesis: Consumers do not purchase organics because it requires more money.
Hypothesis: Consumers do not purchase organics because it requires more effort.

Question 5 & 6 - To determine what factors are motivators to desired purchasing behaviour.
These questions remove price and availability as influences, and ask respondents what factors might change someone's behaviour towards purchasing of organics. This will identify behaviour changes and the reasons behind behavioural change – key factors indicated in the literature have been given as possibilities to agree/disagree to on a Likert scale (eg Health, Taste and Familiarity).

Reasons for questions:

Buy according to HEALTH/NUTRITION	Lockie at al (2002); Zakowska-Biemans (2009)
Buy according to TASTE preference	Zakowska-Biemans (2009); Lucas *et al*, (2008)
Buy the the product with the best APPEARENCE	Steptoe *et al* (1995); Lucas *et al*, (2008)
Buy what they normally buy - PRODUCT FAMILIARITY	Steptoe *et al* (1995)

Hypothesis: Purchase behaviour will change when Price and Availability are excluded.
Hypothesis: The reason for purchase behaviour will be due to Health and Taste (internal concerns).

Question 7 – To identify where purchase behaviour mainly comes from - do consumers act out of personal (eg health) or world (eg care for the environment) concerns.
This question addresses where purchase behaviour comes from. Whether people act out of a personal (eg health) or world (eg care for the environment) concerns.

Reasons for questions:

"*the two most commonly stated motives for purchasing organic food are, first, concerns for one's health, followed by concerns for the environment... Health is a more important purchase motive for incidental customers than for heavy buyers, whereas heavy buyers bought organic foods for health as well as environmental reasons.*"	Shepherd, Magnusson & Sjöden, (2005)
"Occasional buyers are motivated more by hedonistic (ie taste) and health reasons, while regular buyers stress more the positive environmental effects associated with organic food production."	Lucas *et al*, (2008)

Due to this previous research it is suggested that purchasing behaviour arises first for personal concerns and second for worldly concerns. This research also suggests that purchasing behaviour of heavy buyers is different, in that they have more altruistic reasons.

Question 8 & 9 - To understand if internal purchase behaviour (concern) comes from outer (public pressure) or inner (own initiative) reasons. To establish if consumers experience a conflict between their wishes and reality. To see if there is a desire for alternative behaviour.
Based on Bieris (200?) 3 step momentums of freedom within the will, the following statements address inner influences and disconnections. Depending upon the answers from Question 7, respondents are asked to reply within a world or personal concern context

- I think I/my friend act out of a world/personal concern because of my/their own initiative. - I
- I think I/my friend act out of world/personal concern because of my/their public image.- WORLD
- I think I/my friend experiences a conflict between what I/they wish to do and what I/they do in reality. - CONFLICT
- I think I/my friend would like to act more in accordance with my/their world/personal concern.- WISH

Hypothesis: Consumers who act out of personal concern will do so due to their own initiative.
Hypothesis: Consumers who act out of world concern will do so due to their public image.
Hypothesis: Those that act of a world concern will experience a higher conflict between their wishes and reality.
Hypothesis: Those that act of a world concern will more strongly wish to act more in accordance with their world concern.

Question 10 - To investigate whether empowering motivation may create a bridge to cross the organic food purchasing action gap.
Various options from the literature are given as influences to empower motivation. Respondents are asked on a Likert scale to rate their agreement.
Reasons for questions:

Becoming aware of my/their personal HABITS	"We choose the easy comfortable way if we have a choice... habits condition our lives more than we like to admit." Ernst, 2009.
PRACTICAL EXPERIENCE of organic agriculture	"Consumers that are more involved with sustainable products also hold a more positive attitude and a higher behavioural intention to buy them." Aertens, *et al*, 2009.
Increasing my/their sense of SOCIAL RESPONSIBILITY	"...activating... ethical beliefs may enhance the likelihood of choosing organic products." Honkanen, Verplanken and Olsen, 2006
Strengthening my/their APPRECIATION for the future of the WORLD and ENVIRONMENT	"...heavy buyers bought organic foods for health as well as environmental reasons." Shepherd, Magnusson & Sjöden, 2005
More KNOWLEDGE about organic products and agriculture	"Extra knowledge about organic production processes may help to increase involvement." Aertens, *et al*, 2009.
Better understanding of HEALTH benefits	

Hypothesis: Internal aspects (Habits, social responsibility, appreciation) will empower motivation

Question 11 & 12 – To determine if consumers think that nutrition from Biodynamic food influences the will.
It has previously been suggested that nutrition from Biodynamic food influences the will (Pfeiffer, in Meyer, 2003). The final question touches on this, to explore if this aspect is considered by consumers.

Appendix 3. Focus group

<u>Objectives:</u>

- Create an overall understand of the reasons for behaviour – why do you do what you do?
- Clarify crucial aspects that trigger and also stop people from acting.
- Identify the reasons behind people's actions and the barriers that stop them doing what they want to do, and then apply this information to understand consumers' behaviour.

<u>Method:</u>

- Ask three questions within a group of young people (18-35). Why Youth? Youth are discovering the reasons for their actions and are at the beginning stage of figuring out why they do what they do and are potentially not stuck in habits yet.
- *Why do you do what you do? What triggers/motivates you to act?*
- *How are you helped to do what you do? What helps you realise, bring into reality what you want to do?*
- *What stops you from doing what you want to do? What hindrances do you experience?*

<u>Results:</u>

- Create an overall understand of the reasons for behaviour – why do you do what you do?

The reasons behind people's behaviour include: *When I feel connected and take responsibility, (inspired by it, motivated, etc), knowing what I do helps others/the world, meetings with other people who inspire me, people who let me be myself, sometimes intuition (not sure why I act but it feels right).*

- To clarify crucial aspects which trigger, and also stop, people from acting.

Trigger action: K*nowledge, people, conversations, inspiration, responsibility and support.*
Hinder action: *Doubt, fear, lack of courage, out of balance*

- To identify the reasons behind people's actions and the barriers that stop them doing what they want to do, and then apply this information to understand consumers' behaviour.

The reasons for people's actions appear varied, but mainly

Appendix 4. Customer Assisted Shopping

Objectives:

- To determine the reasons behind consumer behaviour choice
- Identify if there is a greater intention and a wish for alternative behaviour
- To identify barriers of desired behaviour
- To determine if consumer understanding of the action gap

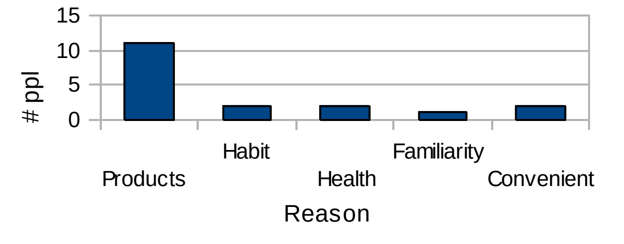
Method:

- Direct questioning and observations within an organic supermarket context.
- Approach people in NZ organic supermarkets
- The questions ask directly about the action gap. They are applied within an actual context that the respondent can relate to.
- *Why did you come into this organic food shop?*
- *Would you like to come shopping here more often? If yes why? If no why?*
- *If you also go into other food shops - What stop you from coming into this store?*
- *What percentage of your shopping do you actually buy here? What percentage would you ideally like to buy here?*

Results:

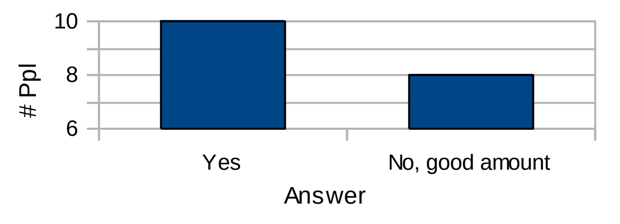
- Determine the reasons behind consumer behaviour choice

It appears that products are the main reason why consumers come into organic shops. Habit, health, familiarity and convenience were also identified.



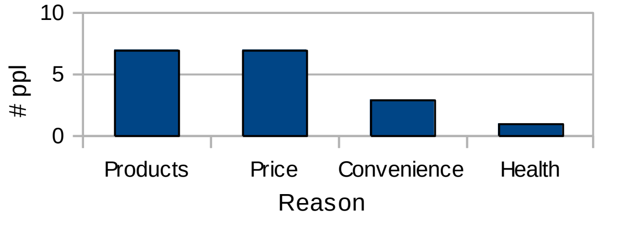
- Identify if there is a greater intention and a wish for alternative behaviour

Some customers identified that they would like to come shopping in the organic supermarket more often.



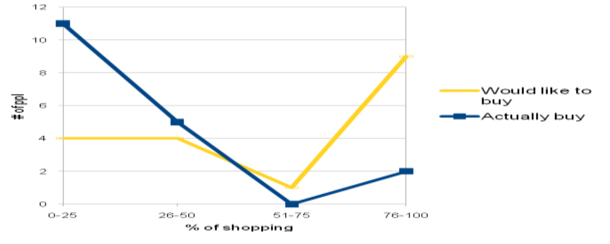
- To identify barriers of desired behaviour

Products was the reason people came into the shop, but also one of the main barriers to not come in and to go into other shops. Price was identified just as much as products, and convenience and health were also mentioned.



- To determine consumer understanding of their action gap.

A lower percentage of organic food purchased was seen in actual behaviour, higher percentages of organic food was seen as what consumers would like to buy.



Appendix 4. Descriptive data of survey respondents

Descriptive data of survey respondents

Please note: Figures based on fully completed surveys only

FW=FoodWatch, KV=Konsumenten Verband, BC=Bio Company, BV =Biodyn Verbraucher, BD=Biodynamic Association UK, OCA=Organic Consumer Association, YS=YouthSection, OCA=Organic Agriculture Centre

Organisation	FW	KV	BC	BV	**German Network**	BA	OCA	YS	OAC	**English Network**	**Total**	% per question
Country	DE	CH	DE	DE		UK	USA	Intern.	CA			
% Continent	99%	97%	100%	99%		100%	94%		90%			
#respondents	1,730	39	3	101	**1,873**	5	838	14	11	**868**	**2,741**	
Male	790	20	3	61	**874**	2	**183**	4	4	**193**	**1067**	**38.93%**
Female	940	19	0	40	**999**	3	**655**	10	7	**675**	**1674**	**61.07%**
Age												
18-24	96	1	0	2	99	0	33	8	0	41	140	5.11%
25-34	312	13	2	15	342	1	117	3	3	124	466	17.00%
35-44	482	3	1	21	507	1	123	1	1	126	633	23.09%
45-54	463	8	0	50	521	0	191	0	5	196	717	26.16%
55-64	260	12	0	13	285	2	245	0	1	248	533	19.45%
65+	117	2	0	0	119	1	129	2	1	133	252	9.19%
Children Y	966	21	0	73	1060	2	474	1	7	484	1544	**56.33%**
Children N	764	18	3	28	813	3	364	13	4	384	1197	**43.67%**
Education												
High School	274	6	0	21	301	0	102	5	3	110	411	14.99%
Diploma	771	15	1	40	827	1	136	3	1	141	968	35.32%
Bachelor	85	3	0	4	92	3	345	5	2	355	447	16.31%
Master	527	10	2	34	573	1	189	0	4	194	767	27.98%
Doctor	73	5	0	2	80	0	66	1	1	68	148	5.40%