ILONA LILIÁNA BIRTALAN FOOD CONSUMPTION AND PSYCHOLOGICAL WELLBEING

DOCTORAL (PhD) DISSERTATION THESISBOOK

DOCTORAL SCHOOL OF PSYCHOLOGY FACULTY OF EDUCATION AND PSYCHOLOGY EÖTVÖS LORÁND UNIVERSITY

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I. Introduction

The Topic and Aims of the Research

Our choices and decisions have a significant effect on our life satisfaction. Personal judgements - from where we live to what to eat - influence our well-being. Since meals are a fundamental part of our everyday life, eating the right food may help to improve personal satisfaction. A healthy diet (rich in fruits and vegetables) may decrease the risk of life-threatening diseases such as cancer or cardiovascular disorders and can influence the quality of life in both the short and long term. Not surprisingly, consumer demand for organic products has been growing worldwide as it is considered healthier, safer, better tasting and of higher quality than conventional foods. Interestingly, behavior related to the purchase of organic food increases the probability of buying local agricultural products.

There are a number of consumer groups which challenge the operation of a consumptionbased society, especially concerning industrialized production. One of them, community supported agriculture (CSA), does not necessarily challenge belief in the market-organized society but may try to minimize the negative effects of conventional production. There is no single definition of CSA, but the main principle of those that exist is that they attempt to supply consumers directly with fresh and organically grown products. Each CSA model attempts to strike a balance between the local and the wider economic, social and environmental policy context, although some elements, such as the weekly pick-up of products, seasonality issues and familiarity with the farmer, are common. The pre-paid and pre-determined size box of seasonal, freshly harvested vegetables should be taken away by members at a pick-up location each week during the contracted season. CSA provides benefits to its members such as improved nutrition, increased food security and knowledge about the source of one's food.

The main goal of this Dissertation was to understand the unique set of aspects which explain why and how CSA members are often able to accept strict and serious commitments, and to maintain their membership for many years. The 1st study (primary research theme, consumers) was to address the research gap as to address how spousal involvement affects CSA membership. The 2nd study (primary research theme, consumers) aimed to investigate how participation in CSA influences the construct of dynamic concept of health (Huber et al., 2011), focusing specifically on health-related adaptivity and self-management practices. While existing research suggests that CSA has a significant impact on health, little is known about how it affects the well-being

experiences in relation to the food of CSA participants: this was the aim of the 3rd study (primary research theme, consumers). Furthermore, to enhance comprehension of the factors that shape the experiences of the CSA farmers themselves, my 4th study (secondary research theme, farmers) identified mental health challenges arising within the context of CSA practices.

About the Studies of the Dissertation

Two international scientific posters, one Hungarian scientific poster, two international scientific presentations, eleven Hungarian scientific presentations, three Hungarian awareness-raising presentations and one article, three Hungarian scientific articles, one related methodology chapter and four international scientific articles are with the first authorship on this topic. The four international articles (Q1 and Q2 journals, altogether amounting to an impact factor of more than 12) are the base of the B) type dissertation (summarized in Figure 1).

With a qualitative data collection, the primary research theme (ELTE PPK KEB: 2017/128) concentrates on CSA consumers. Via different qualitative data analysis approaches there are three different peer-reviewed international articles from the consumer point of view: 1) spousal involvement of members in managing CSA participation (data analysis method: inductive thematic analysis); 2) food-related well-being of members from the health psychological bio-psycho-socio-spiritual well-being point of view (data analysis method: deductive thematic analysis); and 3) analysis of health-related adaptivity and self-management practices within CSA (data analysis method: deductive thematic analysis).

The secondary research theme (ELTE PPK KEB: 2018/202) concentrates on farmers' menta health challenges and work difficulties associated with the everyday world of CSA. The applied qualitative data collection and data analysis method was interpretative phenomenological analysis (IPA).





List of Publications the Dissertation is Based Upon

1. Birtalan, I. L., Neulinger, Á., Rácz, J., & Bárdos, G. (2020). Community supported agriculture membership: The benefits of spousal involvement. *International Journal of Consumer Studies*, 44(2), 172–180. <u>https://doi.org/10.1111/ijcs.12555</u> (Study 1)

Birtalan, I. L., Bartha, A., Neulinger, Á., Bárdos, G., Oláh, A., Rácz, J., & Rigó, A. (2020).
 Community Supported Agriculture as a Driver of Food-Related Well-Being. *Sustainability*, *12*(11), 4516. <u>https://doi.org/10.3390/su12114516</u> (Study 2)

3. Birtalan, I. L., Neulinger, Á., Bárdos, G., Rigó, A., Rácz, J., & Boros, S. (2021). Local food communities: Exploring health-related adaptivity and self-management practices. *British Food Journal*, *123*(8), 2728–2742. <u>https://doi.org/10.1108/BFJ-12-2020-1176 (Study 3)</u>

4. Birtalan, I. L., Fertő, I., Neulinger, Á., Rácz, J., & Oláh, A. (2022). The wellbeing paradox in Hungarian local sustainable agriculture: A health psychology approach. *BMC Public Health*, 22(1), 2326. <u>https://doi.org/10.1186/s12889-022-14643-2</u> (Study 4)

II. The Four Peer-Reviewed International Studies

Study 1

Community Supported Agriculture Membership: The Benefits of Spousal Involvement

Aims: Fresh vegetables originating from alternative food networks (AFNs) are an increasingly popular choice all over the world. Being part of an AFN frequently redefines consumption and participation of family members in food-related activities. CSA is a type of AFN, providing increased access to produce in the form of a risk-sharing model between farmers and consumers which, at the same time, influences organization of household resources. Thus, not only the given member of a CSA, but also his/her spousal activities in household processes should be taken into account. It is clear that entering into CSA significantly affects lifestyles and frequently requires a great deal of adaptation, possibly leading to a crisis of whether to stay within the CSA or cease membership. The objective of this study was to reveal how spousal involvement influence CSA membership.

Methods: An explorative research design based on qualitative methods has been applied since little was known about how spouses influence the length of CSA. In-depth, semi-structured interviews were conducted with 35 (four male, thirty-one female) current or previous members of several CSAs operating in Hungary. Thematic analysis was used as a processing method, which "tends to provide less of a rich description of the data overall, and more of a detailed analysis of certain aspects of the data" (Braun & Clarke, 2006, p. 12).

Theoretical background: Consumption theory (e.g., primary food shopper; food consumption stages). Throughout the interviews a rich picture of spousal influence emerged, so we chose inductive thematic analysis.

Results: The results of this study provide an insight into the patterns of spousal influence related to CSA food consumption. Regardless of the form of membership and household type, most of the interviewees have had a large number of CSA experiences regarding the role of their spouses which enabled a detailed understanding of spousal influence on CSA membership. The identified spousal interactions demonstrated an important impact on the maintenance of CSA membership.

Using an explorative qualitative design, this study has identified three emerging patterns of spousal influence: coherent, integrative and neutral/antagonistic. The three patterns of spousal influence on CSA membership have been identified relating to the following consumption stages: (1) logistics and purchase within CSA activities, (2) meal selection, (3) food preparation and cooking, or (4) waste and disposal practices as summarized in Table 1.

	Coherent pattern	Integrative pattern	Neutral/Antagonistic pattern
CSA logistics,	common task	decision of the primary food shopper	decision of the primary food shopper,
purchase		and a supportive spouse	but spouse cannot reduce the
			challenges: different food sources and
			purchase
Meal selection	common	spouse's confidence in the primary	different food preferences and tastes
	creativity and	food shopper, spouse's preferences	
	learning	taken into account	
Preparation	common	proactivity of the primary food	parallel preparation, duplicated
and cooking	openness	shopper for acceptance: combination	cooking
	including new	of flavors, blending, masking	
	diets, solutions	vegetables	
Waste and	rare, common	OR	waste and guilt
disposal	guilt	social proactivity of the primary	
		food shopper:	
		sharing vegetables in order to	
		minimize loss, disposal by social	
		events	

Table 1. Type of Spousal Influence Patterns in Relation to CSA Consumption Stages

Although CSA provides some enjoyment in the sensory experience of eating such as discovering the taste of fresh seasonal food, or new culinary experiences by offering meals cooked from scratch, it certainly creates pragmatic inconveniences for the consumer experience resulting in an effect on the interactions between spouses in regard to CSA membership.

Discussion: Results show that spousal interactions regarding CSA membership require increased family time and a change in family efforts or decision-making: picking-up, cooking, preparation and storing CSA vegetables has an impact on the organization of the family schedule and also influences family interaction. This study shows how and to what extent spouses become

involved in the process of taking part in a CSA, and how it influences CSA membership. The coherent spousal pattern is characterized by a pleasant social atmosphere; as the integrative pattern on the primary food shopper rearranges her/his preparation/cooking practices or strengthens the social dimensions of food consumption, whereas the neutral/antagonistic spousal pattern frequently means duplication in the overall food consumption processes (using CSA together with earlier, regular food sources).

Study 2

Community Supported Agriculture as a Driver of Food-Related Well-Being

Aims: There is a growing amount of research interest to understand the role of food in well-being. The demand for CSA, bringing people spatially, economically, and socially closer to food, is continuously expanding. CSAs play an important role in both sustainable agriculture practices and influencing consumers' food-related practices, but as yet have received little attention in well-being research.

Methods: This study explores food-related well-being among CSA members by using an exploratory, qualitative research design and a thematic analysis of semi-structured interviews.

Theoretical background: the bio-psycho-socio-spiritual model (BPSS) of well-being. BPSS model reflects a multiparadigmatic view and addresses all health-related factors contributing to the level of subjective well-being.

Results: Over the course of the interviews several themes emerged concerning food-related well-being in a CSA. Interviewees often described practices to illustrate their health focus or how the nature of the food received in CSA ensured physical well-being. Increased vegetable and unprocessed food consumption were associated with healthy eating patterns by the interviewees. Since the CSA produce is freshly harvested and provides a greater variety determined by seasonality, it has enhanced members' perceived food-experiences from a sensory point of view (including the experiences with previously unknown vegetables).

Changing the food source seemed to be an obvious transition for the members interviewed. Maintaining the CSA membership refers to the inner processes that facilitate a member's ability to invest in efforts to master tasks successfully and to reduce inconveniences. CSA provides space for ongoing psychological growth and integrity as a support for psychological well-being.

CSA food is strongly embedded in a community-based environment involving interactions and social relationships. CSA provided venues for pick-ups or farm visits where community members could come together. Interviewees mentioned that CSA widened their social realities through the very different modes of the production/consumption relationship and expanded their horizons regarding social connections in consumption. To belong to a CSA from a social wellbeing point of view implies the social tasks encountered: experiencing relatedness and connections with other members.

Participants' descriptions highlighted that CSA creates a space where they can live with a spiritual perspective. Their experiences centered on the opportunity given to CSA participation in 'fronting up' on the issue of local, organic farming, or the care CSA participation provided for them. Spiritual well-being also includes broader aspects such as gratitude (to nature, to the farmer) or respect for the food consumed (moving away from the mere utility of food consumption), or regular rituals (several sets of fixed actions).

These findings (see summarized in Figure 2) stress the relevance of psychological, social, and spiritual aspects of food-related well-being beyond the nutritional characteristics of food in CSA:



Figure 2. Emerging Themes of Food-Related Well-Being in the CSA

Discussion: The role of sustainable agriculture in contributing to food-related well-being becomes particularly evident based on consumers' experiences. These food-related experiences belong to their perceived well-being as well as stimulating people to elevate their multidimensional expectations in relation to food.

This study stresses the relevance of psychological, social, and spiritual aspects of food-related well-being beyond the nutritional characteristics of CSA food. Clearly, CSA participation does not provide individuals with the ability to constantly feel good. There are various arguments both for and against CSA participation, and from a personal perspective, CSA consumption can underline a wide range of experiences. At the same time, it is possible that members may be encouraged to accept CSAs due to the emerging well-being benefits.

Study 3

Local Food Communities: Exploring Health-Related Adaptivity and Self-Management Practices

Aims: While many characteristics of food consumption have been examined, little attention has been given to the health potential of consuming from local food communities. Local food communities, including CSA are food initiatives, which try to respond to the healthy food, environmental or socioeconomic challenges of the food system. As a step toward understanding local food communities, this study sets out to examine the health-related adaptivity and self-management practices of CSA participation.

Methods: The qualitative research approach, which included semi-structured interviews (n = 35) was designed. The data were analyzed using thematic analysis to discover the potential for being healthy: the ability to adapt and to self-manage among CSA participants.

Theoretical background: According to the dynamic and interactive health concept, human health is an "ability to adapt and to self-manage" (Huber et al., 2011, p. 1).

Results: Four themes (see summary in Figure 3) exploring the issues and concerns of interviewed CSA participants have emerged from the study data, namely: (1) Awareness of

product origins, (2) Enhanced food-management capabilities, (3) Expanding applicability and usability of the food environment, and (4) Strengthening one's food-related self-image.



Figure 3. Themes That Emerged in Relation to the Potential for Being Healthy in CSA

CSA consumers frequently talked about CSA as a food source they had specifically sought out (1. Theme). Although food outlets (supermarkets, grocery stores) provide a wide range of healthy foods, interviewees were highly motivated to use local food sources. This was enhanced by the consumption of CSA-origin foods that were seen as intrinsically healthy in the way they were produced.

Adaptation to the needs of the CSA environment is the second theme (2. Theme), it shows participants start to organize food-related processes according to both their own capabilities and the needs of the CSA environment. Most of the interviewees recounted that they are able to regulate their emotions, thoughts, and behavior effectively in the face of a number of challenges related to 'consumer–producer partnerships' which gave them increased skills in food management.

CSA food environments provide opportunities for participants to re-envision their relationship to food supply chains in general (3. Theme). Participants gained a deeper perspective of what really matters when they 'buy or consume' food and realize how it can influence their well-being. This third theme reveals the extent to which a person is able to reflect on CSA consumption experiences and widen his/her attitudes and expectancies in relation to consumption (e.g., reflecting on vendor or product properties). For example, several mentioned how the CSA

can lead to new and important trajectories of participants' food-related lives: new eating or shopping behaviors.

Participants shared that consuming in the CSA makes them believe they are a person who is involved in health (4. Theme). Participants managed their food-related practices for health while developing improved confidence in their food decisions. This confidence is about trusting in their health-related decisions about food as part of their self-image. This theme suggests that health might be not only more holistic (health of local environment, local food community, family, physical or psychological health) but may refer to personal responsibility in relation to the CSA participation, too.

Discussion: In the CSA, consumers meet directly with features of the local agricultural landscape, farming, and producers, encompassing the availability, production, quality, and quantity of foods. Thus, the notion of CSA participation goes beyond its physical health-related nature and widens CSA participants' perspectives in relation to health: they can create the meaning of food within the CSA environment, and they are able to identify and connect with the food and the food system improving health-related experiences. From this point of view, CSA food consumption addresses food-consumption-related personal capabilities, to develop and apply strategies for use of their resources carrying greater significance for food in relation to their own health. Proximity to food from local sources and the strength of interactions among participants, whether weak or solid, enable them to gain intimate experiences of their own health in a local context.

Study 4

The Wellbeing Paradox in Hungarian Local Sustainable Agriculture: a Health Psychology Approach

Aims: The literature suggests that farmers' work involves a number of operational difficulties. Although AFNs address the majority of their problems, they can potentially generate new hardships. The aim of this study was to examine the situational and engagement-related work difficulties associated with the everyday world of CSA farmers.

Methods: This study took a methodological approach commonly used in health psychology to understand the social determinants of farmers' working lives in CSA, and to explore mental health challenges within the practices of local sustainable farming. To collect data, semi-structured, in-person interviews were conducted with CSA farmers in Hungary.

Theoretical background: IPA allows a micro-level reading of the participant accounts which provides an opportunity for others to gain awareness of these individual experiences. Personal experiential themes speak to the psychological essence of the whole data set (idiography).

Results: Our study shows that new modes of consumer-producer connectivity, such as CSA, creates novel situations and issues which farmers are forced to address. Three personal experiential themes (see summarized in Figure 4) emerge from the data: (1) Conflicting autonomy; (2) The pressure of boxes; (3) Social overload.





Experience of taking part in an AFN system had a significant impact on farmers' work and allowed them to exercise their rights to ethical, balanced, and responsible uses of land as well as contributing to a healthy food environment. On one hand, farmers in new modes of consumer-producer connectivity can enjoy influencing healthy local food consumption as well as having an impact on the food system as, in effect, being their own manager. On the other hand, operating a CSA farm has a situational influence on how they decide their personal work schedules and procedures limiting the autonomy of their farming operations. There is no standard-setting process

for farming methods in CSAs and this can cause several work-related stresses in connection with farmers' decision-making autonomy (first personal experiential theme).

The second personal experiential theme is about the pressure of CSA boxes. Farmers had to adjust their schedule to the needs of production, to the season and CSA-box numbers as well as to more intensive work periods because of vegetable quantities or to meet the exact appointments for pick-up days. Additionally, they felt that providing high-quality, compassionate care to consumers was critical, as it is important to match the pre-paid CSA food boxes with members' expectations. Farmers also associated a range of emotions (positive or negative feedback about the products) in relation to the pick-up days, which they described as an important part of their farming life.

The third theme emerged as CSA farming impacts on overall farmers' social relations. Engaging in CSA farming, many farmers experienced a different kind of relatedness including interactions with members, relations with the CSA community or the rural community, and familial connectedness. Such networks often formed active conduits towards achievement of work satisfaction or amplified dilemmas. Personal, community and even professional relationships were described not only as helping people to feel a sense of belonging or giving meaning, but as reasons for many of the challenges, or responsibilities experienced by farmers.

Discussion: This study provides participants' perspectives on the health and well-being costs of sustainable farming. New modes of consumer-producer connectivity could strengthen farmers' sense of mission in various ways, such as grassroot efforts to care about sustainable, healthy, local food and promoting their focus on farming. However, the difficulties for CSA farmers seem to be rooted in the economic characteristics of alternative agriculture.

Newer producer-consumer connections require both time and experience and involve extra effort or skills, but farmers often lack these abilities. The results show how perceptions of work processes relate to the general framework of CSA, which necessitates a distinct strategy for farm management. In addition, structural conditions require several different CSA farmer roles, which could even be conflicting. Unfortunately, some of these issues are simply irrelevant within the consumer-farmer relationship and are bound to those areas of production which are hidden from the view of consumers.

III. Summary of the Added Values of My Studies Significance of the Studies of the Dissertation

Over recent decades, public health research and practice have become increasingly interested in the influence of the food environment on health-related outcomes. One of the independent predictors of individuals' food choice and diet quality seems to be the local food environment. The four studies are focused on one type of local food community. In total, these studies explore the importance of understanding the CSA (as local food environment) and its impact on health.

As Martos and colleagues (2021), highlighted, individuals often pursue personal goals that align with the goals of significant others in their lives: this can lead to both personal satisfaction and stress. Stress often arises during goal pursuit and, when experienced within relationships, it necessitates collaborative stress management, dyadic coping processes (Donato et al., 2023). While some food preferences can be pursued alone in a family, CSA participation may lead to more spousal coordination on a day-to-day basis. When CSA members face challenging situations, positive dyadic coping may have specific significance for them: CSA-related experiences are influenced by how they are available for each other, they can communicate and coordinate actions under the pressure of the CSA. In line with this, choosing CSA as a source of healthy foods provides a great deal of information about the food shopper's attitude toward food and its origins (as a personal project), whilst long-term CSA membership conveys much more information about the type and extent of the coping mechanism between the partners.

All participants in the CSA study (primary research theme: consumers) demonstrated an impetus to engage, primarily motivated by the prospect of accessing locally-sourced, healthy food and a positive engagement experience. This motivation and approach engender a multifaceted environment for varying forms of interaction to flourish within the CSA context. When examined through an eco-psychological framework, the natural environment and the farm itself emerge as key factors in the well-being of CSA members. Exposure to nature within this context can evoke self-transcendent emotional states, and the profound connection to the farm can foster a sense of place attachment, yielding positive emotional outcomes (Arbuthnott, 2023). Consequently, their explorations encompass dimensions such as their relationship with healthy food, social interplays, interconnections between farmers and members, and the reciprocal bond between members and the farm, all while being exposed to the natural environment in alignment with their decision.

These newfound insights, interwoven with the physical surroundings, collectively contribute to the cultivation and assessment of a diverse spectrum of well-being manifestations.

Joining a CSA can have a significant impact on lifestyle, but it may also require an adjustment that can lead to a potential crisis of continuing or dropping out, as Zepeda et al. (2013) explained using the lens of Self-Determination Theory (Ryan & Deci, 2000): participation can also lead to a reduction in autonomy, competence and relatedness. Members do not passively adapt to conditions in the CSA and, via Huber's (2016) theory, we could recognize how consumers are encouraged to take responsibility for their own health and which mechanisms can underpin a healthy diet. The significance of a supportive food environment in members' functioning lies in the active role members play in shaping their surroundings, choosing or modifying them to suit their needs and preferences, and which fit experiences linked to the sense of autonomy, competence and relatedness (see Martos & Sallay, 2017b).

The first three studies (primary research theme: consumers) are focused on members who were motivated to take part in the CSAs, thus actively contributing to their environment conditions by selecting and altering it (Martos & Sallay, 2017b). Aligned with the Niche Construction Theory (Laland et al., 2016), participation in a CSA is likely to become integrated into members' lives, not solely due to personal factors (as discussed in Zepeda et al., 2013). Rather, it is when their individual traits in their interactions with the social, natural, place-related features of a CSA environment (including the pressures they experience, and the presented opportunities) contribute to a positive adaptation within that environment.

The shift from a purely economic perspective to a more holistic ecological and cultural understanding of farmers provides profound insights into their work and the intricacies of their lives. The 4th study (secondary research theme: farmers) is the first in Hungary to focus on the mental health challenges of farmers. CSA systems, which are voluntarily chosen by farmers, may initially appear as adaptive responses to their needs. Despite concerted efforts from CSA members and farmers to adapt, the prevailing dynamic often maintains position, shaping farmers' diverse and sometimes conflicting expectations of the CSA's capabilities. Consequently, participation in CSA necessitates the development of novel coping mechanisms and requires a distinct strategy for farm management. Neglecting this aspect can contribute to mental health issues among farmers. Results show that, through the lens of Niche Construction Theory linked to Self-Determination Theory, the relationship between farmers and members may prioritize relatedness at the expense

of farmers' autonomy, and may create unequal potential to influence the CSA as a working environment (see Martos & Sallay, 2017b).

The four studies of the Dissertation have explored several layers as to how an alteration in the consumer food environment possesses the capability to initiate a variety of behavioral shifts by members and producers. These shifts may encompass slight adaptive modifications, a sequence of minor adjustments within the interrelated factors and extend to more noteworthy, possibly transformative (see farmers lived experiences, members well-being experiences in relation to the CSA food, or ways of health-related adaptivity and self-management in this environment), or even non-manageable alterations (see antagonistic spousal involvement). Behind all this, a feedback loop is also at work (see Martos & Sallay, 2017a): for example, members' vegetable preferences affect farmers' crop choices, which feedback to farmers' work or members' adaptability, well-being, which has an effect on farmer's mood etc.

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