

## **YOUNG PEOPLE'S SOCIAL AGENCY AND COMMUNITY ACTION ORIENTATION: A PARTIAL LEAST SQUARES-PATH MODELING APPROACH USING A SELF ANCHORING SCALE**

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**Abstract:** *In this paper we introduce the validation of a novel and specific indicator to measure social agency, namely Community Action Orientation (CAO). The study defines the CAO exploratory model as a second order Partial Least Squares-Path Model (PLS-PM). The study identifies the latent variables of orientation toward the community selecting 14 items considered into three sets, suggesting how people invest in their local context on both a personal and collective level. Data have been collected through a self anchoring Cantril's scale administered to 862 young people living in the administrative district of Naples. The exploratory analysis outcomes show a structure composed of three latent variables (dimensions), correlated with each other. We assumed that CAO is the endogenous variable in order to explain the agency of young individuals in their local context. To explain the interdependence among these latent variables, a theoretical model was hypothesized and constructed. Evidence of the use of the Cantril scale in conjunction with the PLS-PM corroborates the consistency of the approach.*

**Keywords:** *Social agency, sense of community, community action orientation, Cantril scale, PLS-PM approach*

### **1. INTRODUCTION**

The aim of the present research is to study, both theoretically and methodologically, people's attitudes and orientations allowing them to be socially active in their local community. More specifically the goal is to theorize, implement, and validate a multidimensional tool devoted to measure the orientation to the agency in a specific context.

A first study with young people living in Naples and its suburbs was conducted focusing on social agency. A highly consistent qualitative study, based on 800 semi-structured interviews with youths from the Campania region

(Arcidiacono et al., 2008), showed the co-existence of a strong sense of belonging with a lack of interest in personal and collective planning within the local community (Arcidiacono, 2004; Arcidiacono et al., 2005; Arcidiacono and Di Napoli 2008; Arcidiacono et al., 2008). The data analyses revealed that respondents felt a strong sense of belonging to their context, yet at the same time they expressed a sense of total unwillingness to take part in any social action in that context. This result induced us to construct a scale to explore and measure the youth orientation toward the context and their implicit expectancies (Community action orientation scale, CAO). Results questioned which elements foster community action, which is a fundamental feature promoting local development while giving information about people's agency in a given context. In particular, the results offered elements to define a multidimensional scale to tap into those features determining the capacity to act in a given context, or better still, the capacity to act upon agency-related contextual features.

A further aim of this research was to consider those factors bearing on the relationship between citizens and their community. It focused in particular on environmental, relational and identity issues.

The aim of the article is then to analyze the goodness of a new model that describes people's sense of orientation to action in contexts to which they belong by measuring attributions and expectations toward the context they live in.

A further element of originality is that the model's indicators have been measured through a self-anchoring Cantril scale (Di Napoli et al., 2013).

Several considerations about Cantril self-anchoring scale further led to considering for the estimation of the model parameters the Partial Least Squares-Path Modeling (PLS-PM) approach instead of the more commonly-used Maximum Likelihood approach. PLS-PM does not aim to reproduce the sample covariance matrix and is considered as a soft modeling approach, where no strong assumptions (with respect to the distributions, the sample size and the measurement scale) are required. This is a very interesting feature especially in this application, as the Cantril self-anchoring scale does not allow strong distributional assumptions.

The remainder of the paper is organized as follows: Section 2 presents a general overview of the refereed literature, both in community psychology (Section 2.1) and statistical perspective (Sections 2.2 and 2.3). Sections 3 and 4 describe the methodological approach, the model and the data. Sections 5 and 6 present the main results of the research and discuss the limits and the perspectives of the proposed self-anchoring scale.

## **2. RELATED BACKGROUND**

### **2.1 SENSE OF COMMUNITY, BELONGING AND SOCIAL AGENCY**

McMillan and Chavis (1986) have highlighted how the sense of belonging to a place is paramount (Chavis, 2006) and how this is interlinked with other dimensions such as: emotional connectedness, influence and fulfillment of needs. All together these dimensions constitute the psychological sense of community (PSOC), a construct that shows the psychological value bestowed by people upon their community.

More specifically, PSOC describes the emotional bonds and ties that individuals express when they think of their community; the sense of membership they share living together, having a common system of reference, and sources of goods (Xu et al., 2010).

This model has mainly been applied to organizations whose members experience a sense of togetherness and belongingness to the extent to which they psychologically shape their life as a being within a community (Reich, 2010).

In fact, the sense of belonging to a community has been deemed an essential part of every explanation on subjective investments in collective actions. The literature (Perkins et al., 2002; Smetana et al., 2006) maintains that the sense of belonging and identity to a community plays a role of mediation between participation and well-being. This effect has been confirmed by a trans-cultural study by Cicognani et al., (2008).

Mannarini and Fedi (2009) however, pointed out that the direction of the relation between sense of community and participation is unclear as well as that citizens' representation of a given community plays a role in active citizen participation. On these grounds, Mannarini (2010) and Mannarini et al., (2012) introduced the perception of one's own competencies and individual willingness as criteria to distinguish agency from the other forms of social interaction and cooperation described by Pellizoni (2005).

After examining those dimensions underlying sense of community, place identity, and community identity, Arcidiacono and Di Napoli (2007) emphasized in fact that sense of belonging and identity do not totally explain people's social involvement in their own local living context, and specifically do not explain the individual willingness to act in one's own perceived life context pointing out how this aspect is not explored in psychological literature.

As a result of the above mentioned research Di Napoli and Arcidiacono (2013) defined the orientation towards community action as the evaluation of the context with reference to those factors promoting agency in the social context. According to their hypothesis, agency was defined as the utility and opportunity-based

expectation (Ramsey, 1931) to fulfill a shared yet personal planning. In this study, community action orientation was then extended to the contextual perspective, being interpreted as the expectations vis-à-vis the local context in relation to wellbeing and opportunity for personal and collective development.

Given that the individuals' evaluation of their own social capability was not sufficient to understand their actual involvement in the development of the local area, the research was diverted from the individual dimension to the contextual dimension. In fact, it was already evident that the possibility of each individual to be able to personally intervene does not necessarily guarantee the realization of this project (Arcidiacono et al., 2007). It was also considered that the specificity of the context is determinant for personal or political efficacy (Edwards et al., 1998).

The concept of orientation towards community action, which is conceived as the complex evaluation of several individuals and contextual indicators in terms of personal and collective action was therefore developed. This study has been then aimed at defining and operationalizing this dimension in a sample of young people.

## 2.2 STRUCTURAL MODELING

This paper aims to propose a novel SEM, where the CAO represents the endogenous latent variable. Any SEM consists of two causality data structures: the inner model and the outer model. The latter models the relationships between the manifest variables (MVs) and the related latent ones; the former describes the relationships among the latent variables (inner model). Latent variables are called: (i) *exogenous* latent variables, when they are only related to the manifest ones; (ii) *endogenous* latent variables when they are linked to two or more exogenous variables. The relationships between the variables in the model are defined through linear functions (linear regressions in most cases). According to Edwards and Bagozzi (2000) reflective models are specially suited in psychological research. Reflective models assume that the latent variables (constructs) reflect on the manifest variables leading to mathematical functions where the latent variables are the independent ones and the manifest variables are the dependent ones.

Based on the literature review illustrated in Section 2.1, the paper proposes a CAO (inner) model. The basic assumption of the model is that the sense of belonging and identification with one's own territorial community does not totally explain the individual's social agency (Arcidiacono, 2004; Arcidiacono et al., 2009). From a reflective perspective, CAO is explained by the following three exogenous latent variables: (i) competence and efficacy of the territorial community; (ii) expectations of personal collective and contextual potentialities; (iii) territorial community as a selected place for personal pleasure.

The latent variables have been identified based on previous results reported by Arcidiacono et al., (2009) as well as on the theory of attribution, motivational expectancy, and individual satisfaction (Miceli et al., 2014; Kahneman et al., 2009; Lyubomirsky et al., 1999).

Based on the literature on attribution (Robinson et al., 1982; Smith et al., 2007), the latent variable *competence and efficacy of the territorial community* pertains to the characteristics of a given place, in terms of its potentialities, understood as capabilities able to meet the citizens' basic needs. The latent variable *expectations of personal, collective and contextual potentialities* explains the reasons behind the individual's choice to live in a certain a place rather than others. In other words, this latent variable accounts for people's vision that a place is able to fulfill their expectations concerning their personal involvement in the social and civic life. In that regard, we consider motivational expectancy (Porter et al., 1968) as an explicative concept. Lastly, the last latent variable *territorial community as a selected place for personal pleasure* is related to the features of a place in terms of its ability to promote individual, life-fulfilling, relational, cognitive, and emotional satisfaction. This factor has been defined by drawing on elements such as happiness, well-being and subjective satisfaction.

Figure 1 shows the causality relationships of the CAO model, where CAO reflects on competence and efficacy of the territorial community, on expectations of personal collective and contextual potentialities and on territorial community as a selected place for personal pleasure.

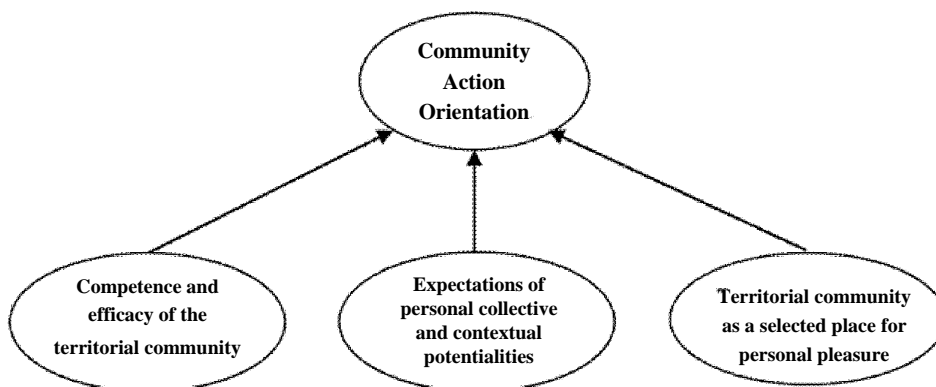


Figure 1: CAO Inner model

Arcidiacono et al., (2008) attempted to construct a specific and adequate instrument to collect information on the orientation to community action by defining the present and expected future involvement in the community of belonging.

The *itemset* identifications and the questionnaire definition were based on the background analysis illustrated in Section 2.1.

### 2.3 CANTRIL SELF-ANCHORING SCALE

For our research we used a self anchoring scale also known as Cantril's scale, after Hadley Cantril who was the first researcher to adopt such a measurement scale. Self-anchoring scales are based on an unlabeled segment with increasing intensity from left to right. Each respondent defines the extremes of the scale for her/himself and then indicates a point that likely corresponds to her/his intensity on the scale. Cantril scales do not require any reference level, except for the extremes; any respondent adopts her/his own scale. As their support is subjectively defined, Cantril scales may not guarantee the homogeneity in the variances that is likely assured by the fixed ratings scale.

The advantage of the self-anchoring scale is that it does not provide an intermediate alternative corresponding to a specific characteristic. In this way the respondents are not induced to assume a 'medium position' and are helped to take sides with their answers. The hypothesis is that, since the individuals can position themselves on the line, they share the same criteria to interpret the length of the intervals as well as the unit of measurement. This entails that they all share an equal manner to attribute meaning to the single dimensions (Corbetta, 1992).

With self-anchoring scales, the respondent (in the case of a sufficiently self-aware individual) evaluates his or her status regarding the specific quality or property under consideration and expresses it by means of a process of spatial or numerical representation that can be very far from his or her usual operations in daily life (Marradi, 1995; Di Napoli et al., 2013).

With self-anchoring scales, the unit of measurement is not established by the researcher but by the interviewees, who place themselves on a hypothetical continuum. In these cases it is therefore necessary to have the active cooperation of respondents, who evaluate their status concerning each specific quality or property.

The Cantril self-anchoring scale therefore provides almost cardinal variables. The Likert scale – a commonly used instrument to measure latent variables - on the other hand, involves ordinal variables, since only the order of the response is guaranteed, while the distance between them is entirely unknown.

It is also worth remarking that the use of the latter, assumes labels to be fixed: e.g. *extremely happy*, *happy*, *unhappy* and *extremely unhappy*. Contrary to this, it

is not unusual to find that different respondents interpret the labels in different ways (Van Acker and Theuns, 2010). The scale technique allows measuring latent variables through a set of manifest variables: additive scales define the latent variable as the un-weighted sum of the manifest scale measurements. An endless scientific debate continues on whether rating scales can be summed up on an interval-valued scale. According to Carifio (1978), Likert scales produce *empirically interval data*. Moreover, Monte Carlo simulation studies have demonstrated that the ANOVA is extremely robust in regards to the violation of assumptions, but within groups variance heterogeneity leads to biased estimation. Rating scale diffusion has therefore been favored by this framework and also by its easy interpretation.

The followings constitute some specific features of the Cantril scale as well as its advantages and peculiarity in comparison with the Likert scale: (i) it does not transform a categorical assessment into a numerical value (see the score that someone assigns with the Likert scale), it allows subjects to express a personal assessment directly by a numerical value that can be measured and compared; (ii) self-anchoring scales could be valuable for cross-cultural comparison (Cantril 1965; Bernheim et al. 2006); it has been shown that Likert scales with fixed anchors suffer from some cultural biases (Chen et al. 1995; Lee et al. 2002), while self-anchoring scales are able to resolve this cultural bias as they explicitly take the respondent's frame of reference into account when asking to compare a given situation with the respondent's personal situation (Bloom et al. 1999); and (iii) within a constructionist and reflexive perspective, strength lies in the expression of the interviewee's assessment rather than an evaluation system determined by the researcher, who does not therefore assign an 'arbitrary' number (score) to an ordinal categorization.

### **3. THE COMMUNITY ACTION ORIENTATION SCALE**

A previous study on community orientation agency involved the use of 37 items: 21 items related to the present and 16 to the future. After constructing and checking each item according to different parameters such as speech ambiguity and the existence of more than one area within the same item, only affirmative items were included in the study.

The questionnaire was constructed ad hoc, then filled out by a sample of youths ranging from 18 to 35 years of age (Arcidiacono and Di Napoli, 2008) and then compared with Community Response Questionnaire (Puddifoot, 1995). The comparison, by means of correlation and factorial analyses, has shown an opposite relationship between Community Action Orientation and Community Response

Questionnaire (Arcidiacono, et al., 2007).

In this study only the set of items clearly related to the present (17 items) were considered and selected as manifest variables of CAO in order to explore and reveal its latent structure, whereas four items related to the expectations of the community future were also excluded.

### 3.1 THE CAO QUESTIONNAIRE

The questionnaire consists of two sections:

a) *Socio-demographic*

This section gathered information regarding the respondent's sex, age, marital status, municipality of residence (in the case of large municipalities the address was also requested) and their participation in any kind of association.

b) *The CAO items related to the present*

Seventeen items referred to the respondents' expectations of the status quo of his or her current community<sup>1</sup>.

We used a self-anchoring scale by which each respondent provided an individual definition of the end points of a dimension and then rated him or herself on this self-defined continuum. Specifically, for each answer, individuals can express their degree of agreement upon a 10 cm-long line, which is then calculated in a fixed range (from 1 to 10) (Corbetta, 1992; Di Napoli et al., 2013).

### 3.2 PARTICIPANTS

A quota sampling was defined according to age, gender and place of residence; 862 young adults ranging from 17 to 35 years old were recruited. The age of participants was considered on the basis of youth parameters indicated in the IARD Institute Report (Bazzanella et al., 2007). The participants were 49.7% male and 50.3% female. 46.3% of the respondents resided in Naples and the others in the surrounding area: 79.0% lived in medium size towns with 10,000-50,000 inhabitants and 21.0% in large towns with 50,000-100,000 inhabitants. Questionnaires were self-administered on a voluntary basis and in a totally anonymous way taking between 40 and 60 minutes. Each respondent signed the informed consent agreement.

Table 1 illustrates the other socio-demographic characteristics of the involved

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<sup>1</sup> To avoid ambiguity in the meaning of the word 'community' (Rapley and Pretty, 1999), we preliminarily inquired about which community the respondent was referring to: their native community where their family lives, or to their current residing or working community (even if temporary). Attributing a particular and localised meaning to the term 'community' becomes useful at a time when the definition of this concept seems to be based on a system of ego-centred interactions which branch throughout the subject's networks of belonging (Fisher and Sonn, 2002; Hunter and Staggenborg, 1988).



sample with regards to: civil status, educational level, employment status, group or association membership.

**Table 1: Socio-demographic characteristics of participants**

<b>Characteristics</b>		
<b>Age</b>	Mean = 24.6; Median = 24; Standard deviation = 4.6	
	17-19 years	10.0%
	20-25 years	55.0%
	26-35 years	35.0%
<b>Gender</b>	Female	50.3%
	Male	49.7%
<b>Civil status</b>	Single	94.0%
	Married or living together without children	4.0%
	Married or living together with children	2.0%
<b>Municipality size</b>	Naples	46.3%
	Surrounding area	53.7%
	<i>10,000-50,000 inhabitants</i>	79.0%
	<i>50,000-100,000 inhabitants</i>	21.0%
<b>Educational level</b>	Lower secondary diploma	11.0%
	Secondary school diploma	66.0%
	University degree	12.0%
	Post degree qualification	11.0%
<b>Employment status</b>	Employed	46.0%
	Student	40.0%
	First job seekers	14.0%
<b>Group participation</b>	Group or association	20.4%
	Neither group nor association	79.6%

#### 4. RESULTS

Classical psychological scale development is a two-step process: exploratory factor analysis (EFA) step and the confirmatory factor analysis (CFA). The EFA step aims to verify the construct validity by examining the dimensionality of the item set. CFA is intended to evaluate and confirm (or not confirm) the underlying theoretical model through the evidence from the data. Factor analysis is performed aiming at identifying the number and the setting of the latent variables and the repeatability of the factorial solution (Thompson, 1994). Factor analysis aims to reduce the data dimensionality with regards to a least-squares criterion (Mizuta, 2004).

To investigate this topic and to explain the agency of people in a given context, the article proposes a novel structural equation model (SEM). To verify the

empirical evidence of the relationships so as to study the derived model, SEM represents these relationships through linear functions (linear regressions in most cases), whose parameters are also called ‘structural parameters’ (Kaplan, 2000).

Two SEM streams have been recognized in modern research practice: the classical SEM approach also known as covariance based approach, and the partial least squares (PLS) or component-based SEM. The use of the latter for index construction purposes made it more suitable for the aim of the present research. Therefore, PLS-PM does not aim to reproduce the sample covariance matrix and is considered as a soft modeling approach where no strong assumptions (with respect to the distributions, the sample size and the measurement scale) are required. Finally, PLS-PM is more oriented to optimizing predictions (explained variances) than statistical accuracy of the estimates (Esposito et al., 2010). PLS-PM approach instead of the more commonly-used Maximum Likelihood approach (like the one employed by LISREL) approach estimates model parameters through ordinary least squares regressions. The Cantril self-anchoring scale was adopted taking into account its specific properties.

PLS Path Modeling is a component-based estimation method (Tenenhaus, 2008) that explains the best residual variance of both latent and manifest variables. For this reason, it is considered more as an exploratory approach, rather than a confirmative one (Chin, 1998). The underlying iterative algorithm first calculates the measurement model coefficients and then, in the second step, calculates the coefficients of the structural model. This means that dealing with PLS-PM it is not mandatory to perform the classical two-step procedure: EFA and CFA. PLS-PM includes in its operational steps for a reflective scheme both a unidimensionality (internal consistency) evaluation procedure and tools for the selection of the suitable manifest variables for assessing the validity of the proposed model, indeed.

#### 4.1 PRINCIPAL COMPONENT ANALYSIS

In order to offer a more complete description of the proposed model we show the results of the Principal Component Analysis (PCA) with *varimax* rotation and Kaiser normalization and standardization of the scores on the first three factorial axes. PCA is a mathematical method that allows us to represent the data set into a lower dimensionality space without imposing any assumption about the data distribution (Lebart et al., 1995). In the factorial analysis framework, PCA is used when the aim is to explore, describe and discover underlying and meaningful dimensions. In other words, PCA allows us to discover and define unobserved, or latent variables: the principal components. Principal components are orthogonal by construction, so that any space defined by two or more axes represents an additive model (Palumbo et al., 2008).

Actually, the *eigenvalue greater than one* criterion suggests retaining the first three factors. The rotated components accounted for 22.6%; 19.0%; 10.6% of the overall variance in a 52.2% total. All variables were positively correlated with the first factor. Nevertheless, positive correlations of all variables with the first factor indicate the consistency of the proposed indicators, which may be considered an important favorable result. Table 2 shows the three factors and the item saturation loading.

**Table 2: Dimensions of Community Action Orientation (CAO): saturation loading on the first three factors**

<i>Item</i>	<b>CAO Items</b>	<b>Factor 1</b>	<b>Factor 2</b>	<b>Factor 3</b>
flid1	My community offers services and structures which allow the realization of my life plans	0.796		
flid2	The municipal administrators show a real interest in my community	0.858		
flid3	The municipal administration is able to adequately provide for my community's needs	0.827		
flid4	My community offers tangible opportunities for citizens to share and discuss initiatives affecting the community	0.795		
flid10	I have confidence in the initiatives undertaken by the inhabitants of this community	0.568		
flid11	There are people who are capable and competent and who are involved in initiatives in the community	0.510		
flid16	I participate in the collective activities which take place in my community	0.438		
flid5	I 'm willing to give up my time to participate in projects, which could come to my community.		0.748	
flid6	I feel able to contribute to the improvement of my community		0.794	
flid7	I feel able to identify a series of resources to improve the state of my community		0.754	
flid12	The people I admire work hard for the good of my community		0.570	
flid13	I discuss with others what could be done in my community		0.447	
flid21	I'm careful to find out about everything going on in my community		0.613	
flid8	I enjoy spending my free time in my community			0.725
flid9	I want to realize my life project in my community			0.469
flid14	I discuss topics important to me with other inhabitants of my community			0.627
flid15	I spend my free time with the inhabitants of my community			0.788

The 3-dimensional plot in Figure 2 shows the three groups of items in the three-dimensional correlation sphere.

Looking at the loading scores in Table 2 any manifest variable has a unique

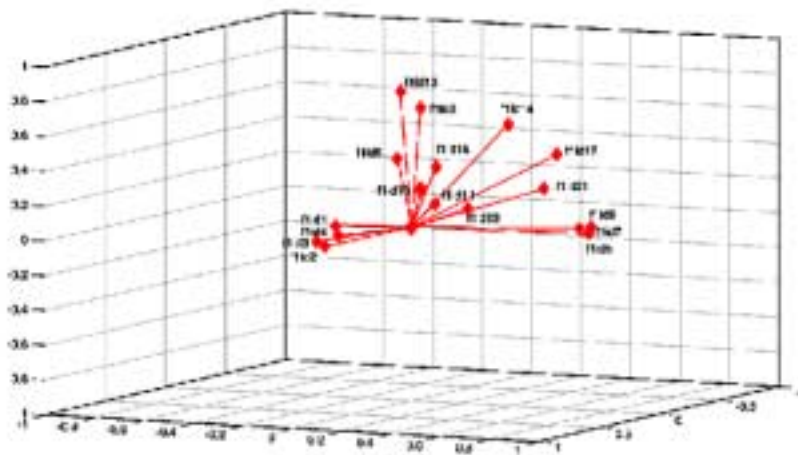


Figure 2: Variables coordinates after the *varimax* rotation

corresponding factor and for all, except one for each latent variable, the loading is greater than 0.5.

Note that for each factor the two most widely-used measures of internal consistency are also reported in Table 3. It is worth remembering that the Cronbach's *alpha* is considered to be satisfying when  $>.8$  and acceptable when between 0.6 and 0.8. However, according to Chin (1998) the DG.rho (Dillon-Goldstein  $\rho$ ) is considered a better measure of the blocks unidimensionality: it is considered to be satisfying when  $\rho \geq 0.7$ . This is the case of the three dimensions here examined, which all show a value above .8 as shown in Table 3.

Table 3. Composite reliability

CAO factors	Cronbach alpha	DG. rho
Competence and efficacy of the territorial community	0.861	0.894
Expectations of personal, collective and contextual potentialities	0.800	0.857
Territorial community as a selected place for personal pleasure	0.692	0.813

### 4.2 STRUCTURAL EQUATION MODEL

Hereinafter PLS-PM results are illustrated, the R package *plspm* (available on the CRAN<sup>2</sup> repository, Sanchez et al., 2012) was used to perform all computations, and it offers quite an exhaustive set of preliminary tools for assessing the validity of the proposed model.

According to the exploratory analysis results and taking into account the proposed inner model (Section 2.2), our measurement model connects manifest variables to the corresponding latent variables through a reflective scheme: responses are then assumed to be a logical consequence of the latent variable they are connected with. The final model is shown in Table 4 and in Figure 3.

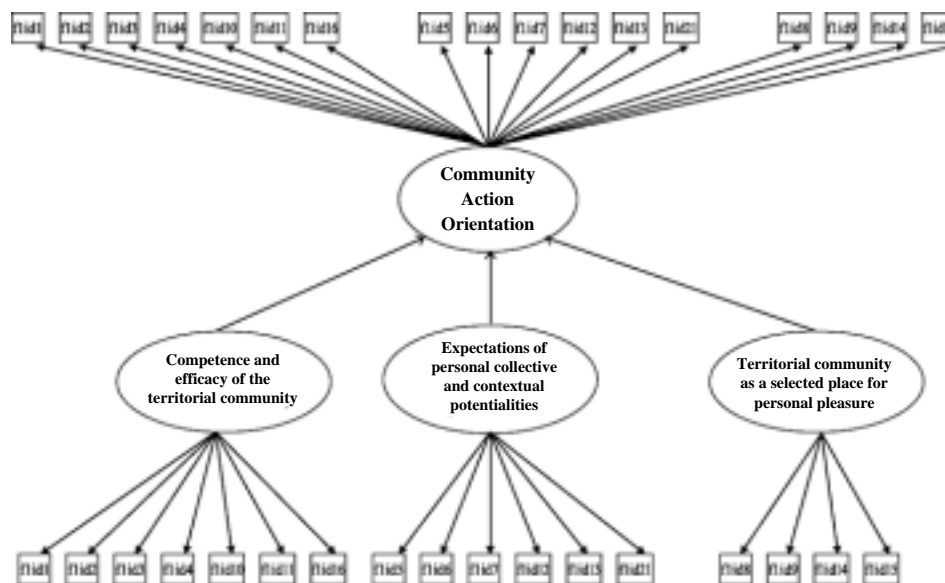


Figure 3: SEM hierarchical model for Community Action Orientation

In the classical SEM approach, model parameters are generally estimated through the Maximum Likelihood (ML) method under the hypothesis that observations are independent and the data follow a specific multivariate distribution (normal multivariate in most cases). However, as already discussed, many authors

<sup>2</sup> G. Sanchez (maintainer), Package *plspm* available at the following URL <http://cran.r-project.org/>, December 2013.

agree on assuming as ‘likely’ true the distributional conditions when data are measured on rating scales. However, such conditions can be violated when data are collected through a Cantril self-anchoring scale. In fact, the data distribution on such cases may be non homogeneous and skewed. Consequently, ML estimator is not the best option to analyze the data.

Conversely PLS-PM requires no assumption either regarding the joint distribution of data or about the independence of observations. Therefore, it constitutes a valid alternative to the ML estimating SEM. In this context, the independent estimation approach presents several advantages when compared to the covariance-based methods. PLS-PM does not rely on any specific distributional hypothesis and, moreover, it provides a practical interpretation of the estimated latent variables (Wold 1982; Tenenhaus et. al. 2005). For these reasons we use the PLS-PM approach for the CAO model estimation. Moreover, as our intention is not to depart from an exploratory strategy analysis, a component-based method is much more consistent than the strong confirmatory covariance based ones. PLS-PM approach allows us to describe respondent’s opinions through the analysis of the estimated latent variables. In particular the use of the hierarchical model within the PLS-PM framework provides a condensed overview of the system, which has an exploratory focus on final endpoint data (Edwards 2001; Edwards et al., 2000). In this regard, CAO hierarchical model highlights how the different manifest variables co-vary, i.e. the degree of information overlapping different blocks. There are many points in favor of the hierarchical SEM’s in psychology; interested readers are referred to Wetzels et al., (2009).

The PLS-PM calculates the latent variables through a system of simple regressions, using an iterative algorithm, which alternates inner and outer estimates. The outer estimation of each latent variable is individually obtained as linear combination of its own manifest variables. The inner estimation consists in computing each latent variable considering its relations with the others. The procedure (outer and inner estimations) runs over to compute the outer model weights.

**Table 4. Measurement model definition**

<b>Latent variables</b>	<b>Manifest variables</b>
Competence and efficacy of the territorial community	flid1, flid2, flid3, flid4, flid10, flid11, flid16
Expectations of personal, collective and contextual potentialities	flid5, flid6, flid7, flid12, flid13, flid21
Territorial community as a selected place for personal pleasure	flid8, flid9, flid14, flid15
Community action orientation (CAO)	flid1, flid2, flid3, flid4, flid10, flid11, flid16 flid5, flid6, flid7, flid12, flid13, flid21 flid8, flid9, flid14, flid15

Table 5 shows that the loading of each manifest variable in its own latent variable is greater than the one in the other latent variables (crossloadings).

**Table 5. Loading and cross loading of manifest variables**

<b>Manifest Variables</b>	Competence and efficacy of the territorial community	Expectations of personal, collective and contextual potentialities	Territorial community as a selected place for personal pleasure	CAO
flid1	<b>0.773</b>	0.303	0.365	0.625
flid2	<b>0.794</b>	0.255	0.288	0.593
flid3	<b>0.762</b>	0.254	0.264	0.570
flid4	<b>0.769</b>	0.291	0.298	0.599
flid10	<b>0.740</b>	0.464	0.479	0.711
flid11	<b>0.676</b>	0.456	0.376	0.645
flid16	<b>0.657</b>	0.476	0.492	0.678
flid5	0.332	<b>0.727</b>	0.310	0.560
flid6	0.333	<b>0.770</b>	0.348	0.590
flid7	0.252	<b>0.702</b>	0.291	0.503
flid12	0.226	<b>0.672</b>	0.484	0.536
flid13	0.544	<b>0.648</b>	0.365	0.650
flid21	0.359	<b>0.723</b>	0.401	0.599
flid8	0.374	0.370	<b>0.796</b>	0.575
flid9	0.472	0.343	<b>0.705</b>	0.586
flid14	0.315	0.517	<b>0.706</b>	0.580
flid15	0.276	0.237	<b>0.672</b>	0.436

Moreover, Table 6 shows the communality coefficient of each manifest variable in its own latent variable, together with the average communality index; the latter expresses the ability of each latent variable to explain its own manifest variables. The average communality index for the three latent variables is higher than 0.5 and it is considered acceptable. Finally it concludes that all the latent variables are powerful at explaining their own manifest variable.

As the distribution of PLS-PM estimates is unknown, conventional significance testing is impossible. However, testing may be accomplished by bootstrap method. The results of the bootstrap technique (Table 7 and Table 8) show the 0.95 confidence intervals of the weight and the path coefficients and prove solution stability.

Tables 6. Commuality coefficient and average commuality

Latent variables	MV	Commuality coefficient	Average Communalcoefficientity
Competence and efficacy of the territorial community	flid1	0.598	
	flid2	0.630	
	flid3	0.581	
	flid4	0.591	
	flid10	0.547	
	flid11	0.456	
	flid16	0.431	
			<b>0.547</b>
Expectations of personal, collective and contextual potentialities	flid5	0.529	
	flid6	0.593	
	flid7	0.494	
	flid12	0.451	
	flid13	0.419	
	flid21	0.523	
			<b>0.502</b>
Territorial community as a selected place for personal Pleasure	flid8	0.633	
	flid9	0.497	
	flid14	0.499	
	flid15	0.451	
			<b>0.520</b>

PLS-PM estimates the outer weights and calculates the corresponding latent variable independently for each block (*itemset*), hence the name ‘partial’; according to the defined structural relations (see Figure 4), afterwards the path coefficients are estimated by means of a regular least squares regression between the estimated latent variables. The procedure works on centered and standardized variables *ergo* path coefficients can also be interpreted in terms of correlation coefficients and of their contributions to the model global  $R^2$ . The model global consistency is achieved by alternatively estimating the outer weights and the inner path coefficients (structural model estimates) until the convergence is reached.

The Table 8 shows the results of the structural model estimates: the regression coefficients linking each exogenous latent variable to the endogenous community action orientation. All path-coefficient estimates of the structural model are significant.



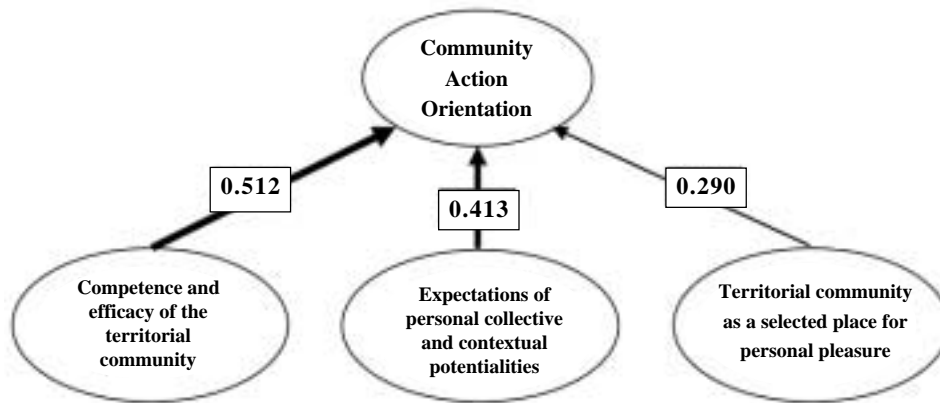
**Table 7. Measurement model weight coefficients and bootstrap 0.95 confidence intervals**

Latent variables	MV	Weight Coefficient	Bootstrap estimation		
			Mean bootstrap	P0.025	P0.975
Competence and efficacy of the territorial community	flid1	0.192	0.192	0.179	0.204
	flid2	0.182	0.182	0.172	0.192
	flid3	0.175	0.175	0.163	0.186
	flid4	0.184	0.184	0.171	0.195
	flid10	0.218	0.219	0.205	0.235
	flid11	0.198	0.198	0.182	0.216
Expectations of personal, collective and contextual potentialities	flid16	0.208	0.208	0.193	0.224
	flid5	0.231	0.230	0.212	0.248
	flid6	0.243	0.243	0.225	0.260
	flid7	0.207	0.207	0.190	0.224
	flid12	0.221	0.221	0.204	0.238
Territorial community as a selected place for personal' Pleasure	flid13	0.268	0.267	0.245	0.291
	flid21	0.247	0.247	0.227	0.266
	flid8	0.366	0.366	0.341	0.391
	flid9	0.372	0.373	0.344	0.406
	flid14	0.369	0.369	0.341	0.401
	flid15	0.277	0.276	0.246	0.303

**Table 8. Measurement model estimates: path coefficients**

Latent variables	Path coefficient contribution to R2	Bootstrap estimation		
		Mean bootstrap	P <sub>0.025</sub>	P <sub>0.975</sub>
Competence and efficacy of the territorial community	0.512 ( <i>p</i> -value <0.0001)	0.51	0.48	0.53
Expectations of personal, collective and contextual potentialities	0.413 ( <i>p</i> -value <0.0001)	0.41	0.39	0.43
Territorial community as a selected place for personal pleasure	0.290 ( <i>p</i> -value <0.0001)	0.29	0.27	0.30
		0	3	6

The goodness of fit indices, for both the structural and measurement model are very satisfactory with an absolute Goodness of Fit (GoF) value equal to 0,663 (see Esposito-Vinzi et al., 2010, page 56).



**Figure 4: CAO Inner model path coefficients**

These results related to our sample of young people (17-35 years old) show that the attribution of competence and efficacy of the territorial community and the expectations of personal, collective and contextual potentialities are the two most important leverages towards the CAO (path coefficient 0.512 and 0.413, respectively). However, it is worth noting that the latent variable territorial community as a selected place for personal pleasure plays its role even if with weaker leverages (path coefficient equal to 0.290). In other words this study shows that among youths personal pleasure related to a place has influence on the CAO. CAO model gives a new perspective based on the dimension of contextual opportunity, till now absent in the literature of PSOC.

## 5. FINAL REMARKS

This research is part of a wider project aimed at constructing a community action orientation scale. The analysis of the data shows a one-dimensional construct, which we named CAO, composed of three correlated dimensions. However, this research was designed only as a preliminary exploratory step towards the definition of a community action orientation scale. It allowed us to identify a set of 14 candidate items that are consistent with previous qualitative research (Arcidiacono and Di Napoli, 2008, 2009). The analysis yielded three important results: (i) the exploratory factorial analysis revealed three latent factors; (ii) the analysis confirms the factorial framework while identifying a latent variable, that is, community action orientation; (iii) the factorial structure among latent factors suggests further investigations in the direction of a path model-based indicator.

The orientation towards action in the community of belonging is therefore presented as a new latent construct. It would therefore be interesting in future work to explore in greater detail the relationship between this construct and individual choices such as employment, housing and active participation in associations that operate in the local context of belonging.

The significance of the endogenous variable, which we labelled *community action orientation* assumes, in our hypothesis, a fundamental role with regard to the chance of planning in the community, either personally or collectively. Our theoretical hypothesis shall be however confirmed in a further study.

More precisely, considering the characteristics of our latent variables we can assume that they collect 3 different psychological dimensions, namely social attribution, expectation and subjective wellbeing: 1) the feature attributed to the context; 2) the expectations that respondents have towards the context; and 3) subjective personal due to specific characteristic of the place or interactions with some of its inhabitants.

Further studies will verify the validity of the instrument and the theoretical model of community action orientation, allowing us to demonstrate how it may interact with young people's use of skills, political commitment, and participation. With regard to this, we set out to further investigate community action orientation as a link between psychological sense of community and civic participation. We assume that what determines personal and collective agency is not mere belonging to a place but appreciating a certain context, or in other words, evaluating positively the availability of resources in the context. In that sense, we talk about community action orientation reflecting expectations, attribution, and individual satisfaction and not about social community in its various definitions – which is the value of contextual relationships – in order to place much emphasis on the connection between each individual and the context.

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