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A Framework to Analyze the Activity System in Family Farming

Pierre GASSELIN, Michel VAILLANT, Benjamin BATHFIELD

Workshop on Study of Family-run Farming

“Comparative Analysis on Agricultural Holdings/Family Farming”

Kyoto University (Japan), March 16th 2017





PROfil

L'agriculture en famille : travailler, réinventer, transmettre

Coordonné par P. Gasselin, J.-P. Choisis, S. Petit, F. Purseigle et S. Zasser

edp sciences

Le système d'activité. Retour sur un concept pour étudier l'agriculture en famille

Pierre Gasselin¹, Michel Vaillant², Benjamin Bathfield³

Introduction⁴

Il y a tout juste vingt ans, Paul *et al.* (1994) publiaient dans les *Cahiers de la Recherche Développement* un article où ils présentaient le chemin qui les avait conduits à élaborer un concept pour rendre compte de la réalité complexe des agricultures caribéennes : le système d'activité⁵. Celui-ci devait servir à mieux saisir la rationalité de familles agricoles dont la principale caractéristique résidait dans le fait de combiner au cours de l'année plusieurs activités, agricoles et non agricoles. Si Cellier et Marquié (1980) l'avaient convoqué avant eux, depuis, le concept appliqué à des problématiques agricoles et rurales a eu un usage limité, restant surtout le fait d'une communauté scientifique française (Dedieu *et al.*, 1999 ; Chia *et al.*, 2006 ; Gaillard et Sourisseau, 2009 ; Fiorelli, 2010 ; Gasselin, 2012b ; Gasselin *et al.*, 2012 ; Bathfield, 2013 ; Bathfield *et al.*, 2013 ; Mundler, 2013 ; Terrier *et al.*, 2013).

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4. Ce travail a bénéficié d'une aide de l'Agence nationale de la recherche dans le cadre du programme Systerra, portant la référence ANR-09-STRA-04. Il remobilise et complète une communication présentée en 2012 à la conférence de l'International Farming System Association (Gasselin *et al.*, 2012).
5. Le mot « activité » est, lorsqu'il est associé à celui de système, délibérément et systématiquement employé au singulier, à l'instar de celui de « production » dans système de production agricole. Ce dernier désigne la manière complexe de produire des biens, animaux et végétaux, diversifiés : le mot production est ainsi pris dans son sens générique (la production agricole). Il en est de même pour le système d'activité, qui renvoie à la manière de combiner différentes activités, d'où l'emploi du mot « activité » au singulier (Vaillant, 2013).

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Introduction

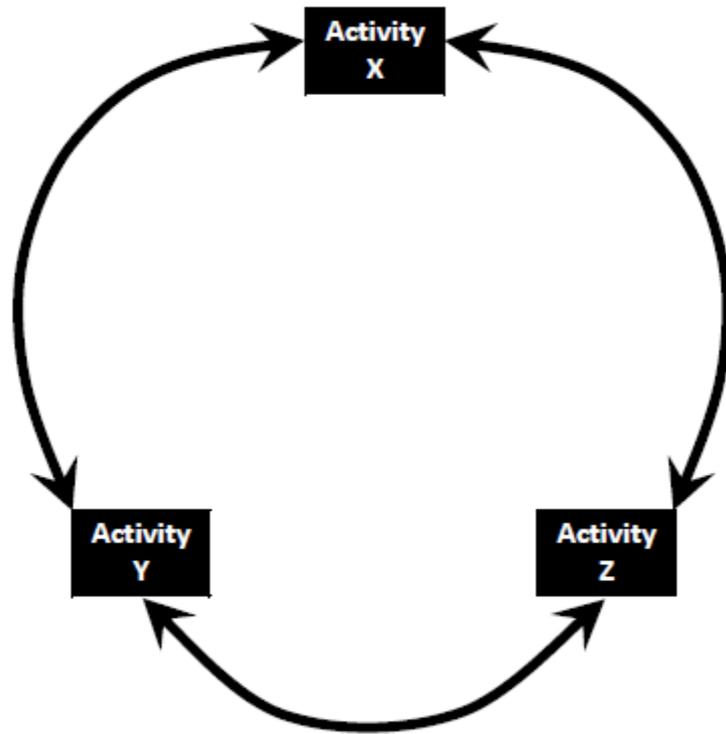
- Importance of combinations of activities **in and around** agricultural activity
- Diversification of productions and activities involves many cognitive, political and operational stakes
 - Analytical tools → describing and understanding
 - Policies and engineering tools → support social and technical changes

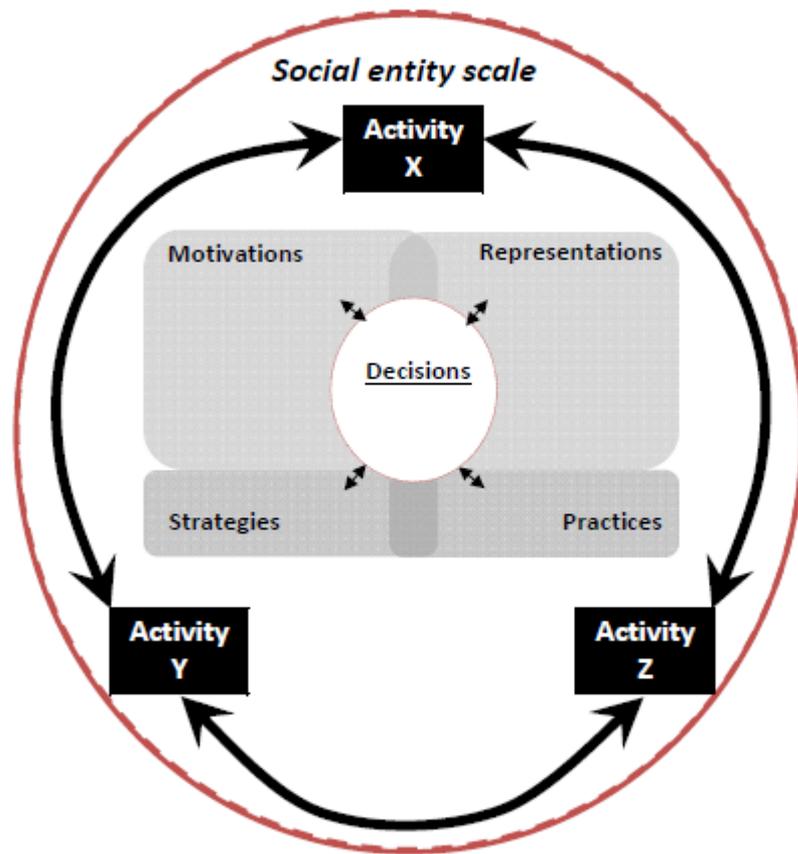
Conceptual framework of activity system:

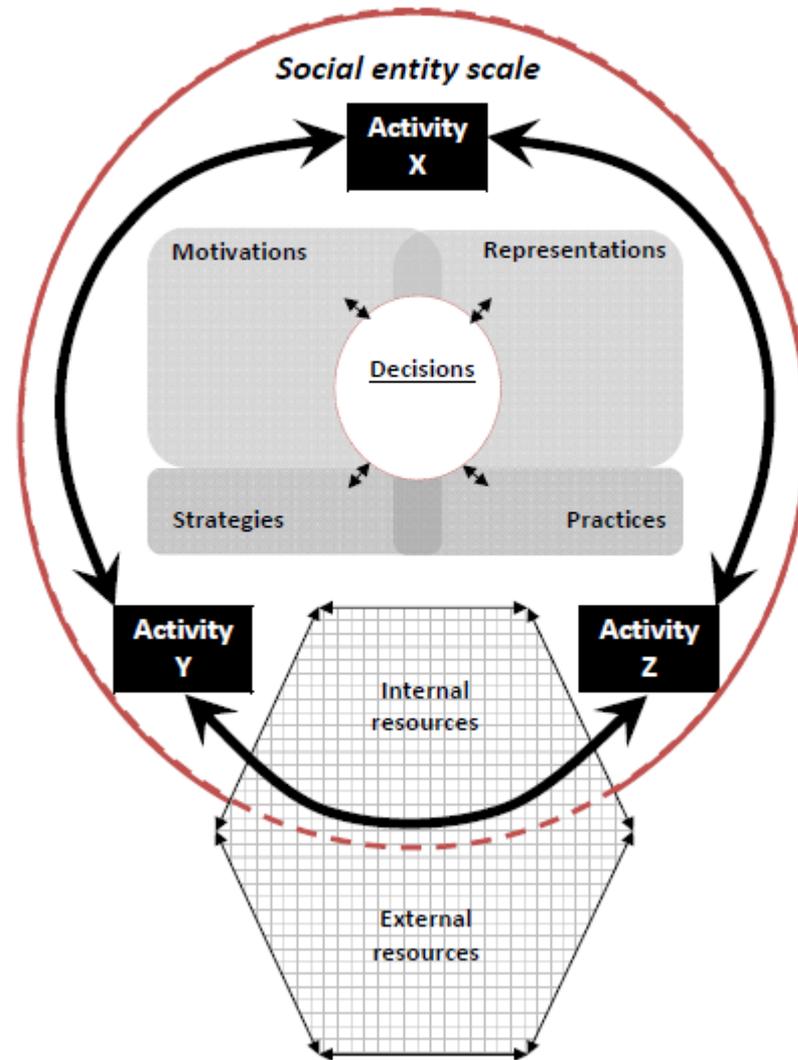
- practices and decisions
- of social entities at the micro-scale (individual, household, family, small firm, small group of individuals, etc.)
- who implement at least one farming activity (crop and / or animal)

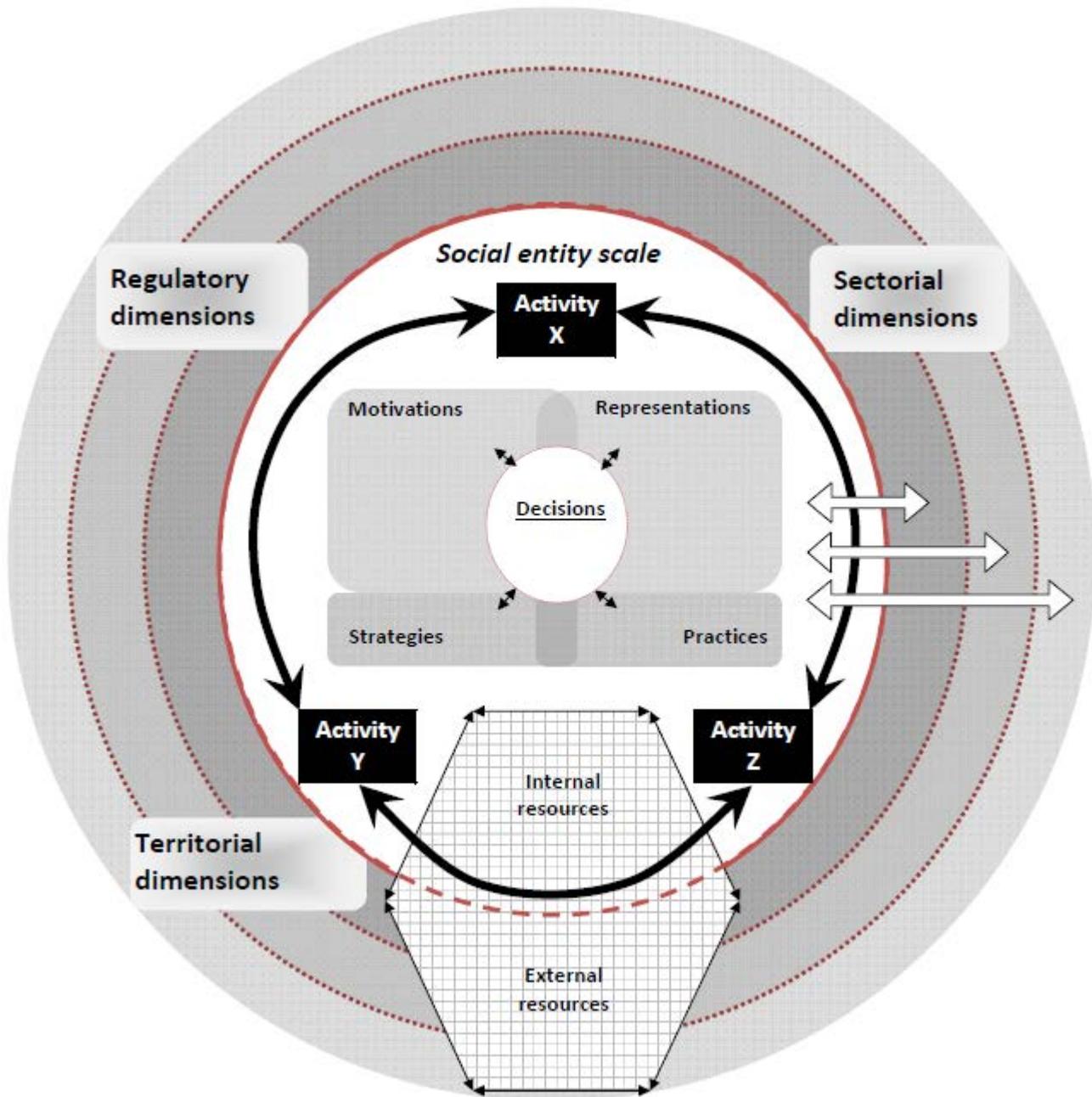
Outline

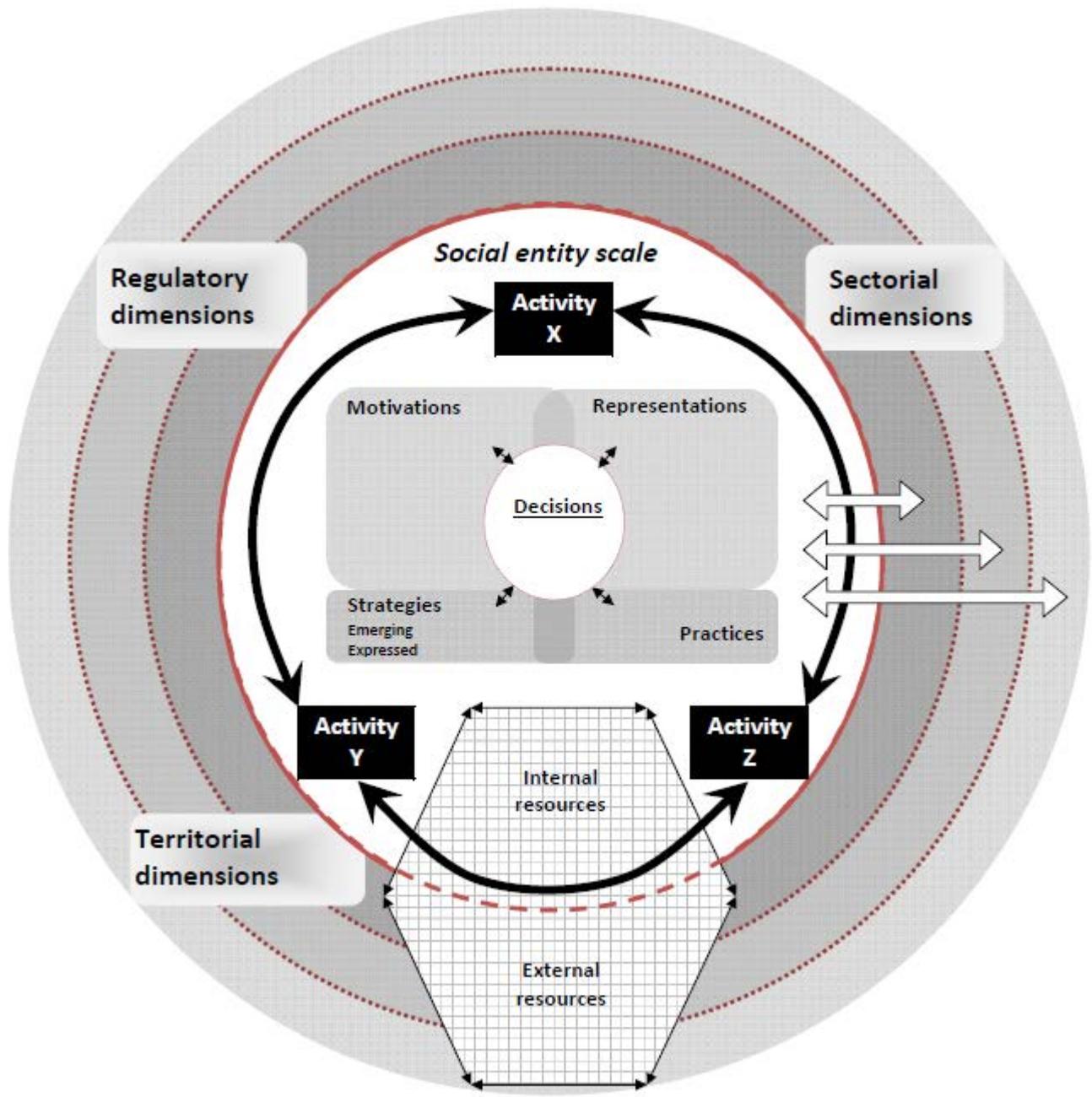
1. Overview of the concept of activity system
2. Theoretical and empirical positioning
3. Conditions of use and field of validity





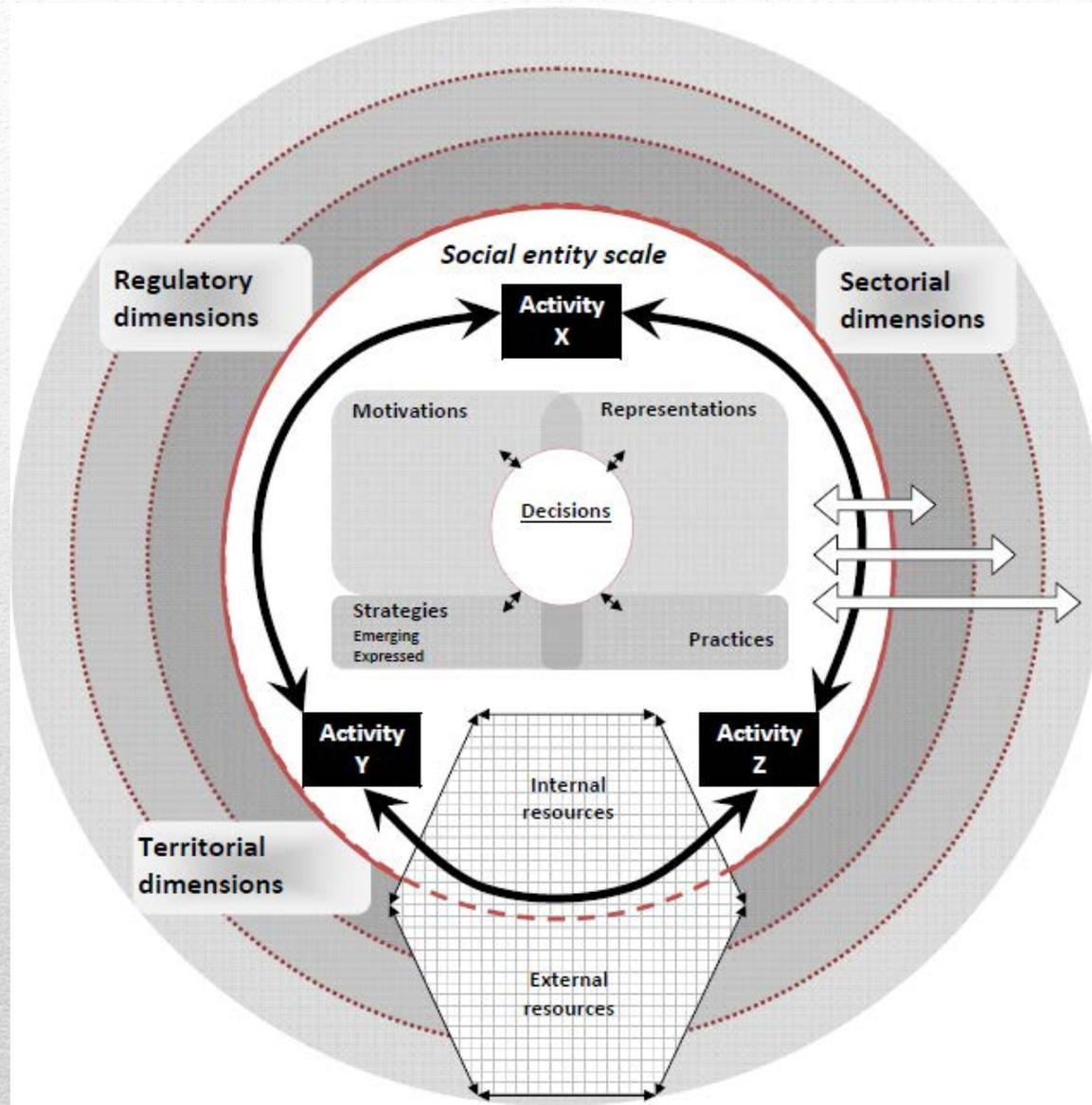






Definition

- Do not attribute objectives to the activity system or to the social entity *a priori*.
- Imply to define the content and the perimeter of its components: the considered social entity and its activity/ies, the categories of motivations for action and decision-making, the resources taken into account, and the prioritized environmental components.



Outputs?

- From the point of view of the social entity, the "outputs" of the activity system are linked to motivations, representations and types of activities considered.
- The "outputs" of the activity system expected by the community are often not the same.
- Which "outputs" of the activity system must be studied? *Income, quality of life, commodity production, non-market production, work sense, adaptability, vulnerability, viability, environmental and social externalities, etc.?*

Theoretical roots: systemic thought

- The legacy of systems thinking ([Crozier & Friedberg, 1977](#) ; [Morin, 1990](#), etc.)
- Applied to agricultural and rural issues ([Brossier et al., 1990](#) ; [Sebillotte, 1996](#) ; [Norman, 2002](#) ; [Cochet, 2011](#), etc.)
- The combination of activities in a systems approach ([Chayanov, 1990](#) ; [Curie et al., 1990](#) ; [Aubry, 2007](#) ; [Mundler, 2007](#) ; [Gaillard & Sourisseau, 2009](#), etc.)
 - Activity system is the field of consistency of practices and farmers' choices.
 - Emerging properties, interactions between activities, but also between the resources mobilized and between the system and its environment.

Theoretical roots: action and decision-making

- Poly-rationality, subjectivity and intentionality of the social entity :
Osty ([1978](#)), Brossier et al. ([1990](#)), Darré ([1999](#)) and Fiorelli ([2010](#)),
etc.
- Theories of action and decision-making that solve sociological
oppositions such as "structure / agency “:
 - The actor of the activity system (his decisions and practices) is not
entirely determined by the upper structures and institutions nor is
he either a fully and freely rational creator of his own activities.
 - Bourdieu ([1980](#)), Boltanski and Chiapello ([1999](#)), etc.

Theoretical roots: conceptions of activity, labor

- Activity does not only create market values.
- **Hannah Arendt (1994)** distinguishes three basic dimensions of the human activity:
 - (1) the "Labor" dimension, which is the economic and domestic life (satisfying the needs),
 - (2) the "Work" dimension, which is the personal creation (creating a common world and usual objects),
 - (3) the "Action" dimension, which represents the political and associative lives in the public space.

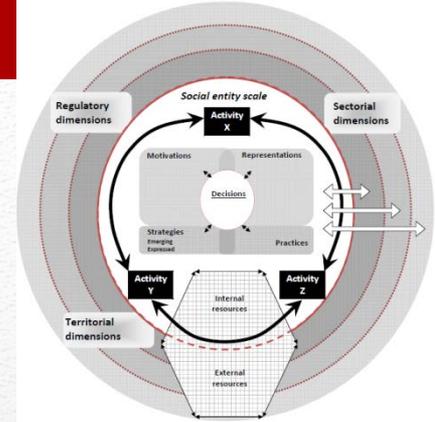
Theoretical roots: resources

- The social entity has commercial and non-commercial resources, some are latent (not immediately available or not mobilized in the activity), other activated (directly available for action and decision).
- Major authors guide our thinking :
 - **Boserup (1970)** and her explanation of the historical evolution of the agricultural techniques
 - **Polanyi (1983)** and his social approach of the exchange which is not only the fact of the market or the State,
 - **Mazoyer and Roudard (1997)** and the theory of agrarian systems,
 - **Gumuchian and Pecqueur (2007)**, and their approach of territorial resources
 - **Amartya Sen (2008)** with the concept of capability and his contributions to the theory of the personal choice
 - **Ostrom (2010)** who gave us criteria to think collective action in the management of common pool resources.

Empirical works

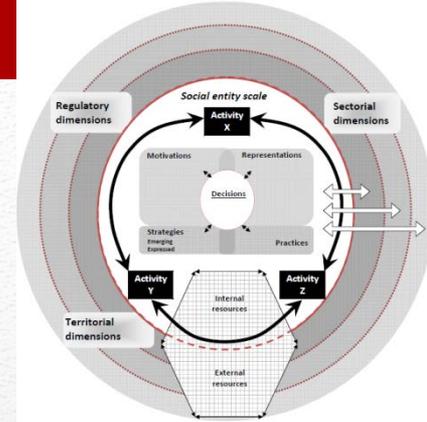
- We mobilized the same concept of activity system in:
 - the Argentine pampa ([Gasselin, 2009, 2013](#) ; [Albaladejo et al., 2011](#), G) : what are the adaptive capacities of Pampean smallholder households?
 - the region of Salars in the Bolivian Andes ([Gasselin & Vaillant, 2010](#)): what are the consequences of the emergence of quinoa in global trade on agricultural and social sustainability?
 - the Andes in southern Ecuador ([Vaillant, 2008, 2013](#)) : what are the causes of emigration and its consequences on the agricultural practices of farmers?
 - western Guatemala ([Bathfield et al., 2010, 2013, 2015](#)): how and why do technical practices change in the coffee plantations of small coffee producers in a context of volatility of the coffee market?
 - and in the South of France ([Terrier et al., 2010](#) ; [Gasselin, 2011](#) ; [2012](#)): how to support the set up of new agricultural activities in pluriactive households?

Choosing the social entity



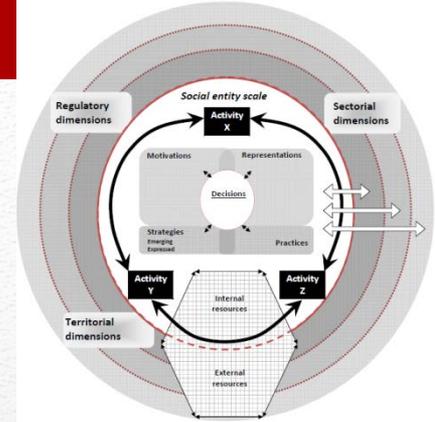
- An individual or a collective actor who contributes to implement the activities, who manages them, and gains an advantage of them.
- Identify in the context studied what are the units of work, decision-making, management, residence, production, accumulation, savings, consumption and risk taking ([Gastellu, 1980](#)).
- These units do not always overlap and are not necessarily the same for all activities. Sometimes they may quickly change in time and space.

Delimitating the activities



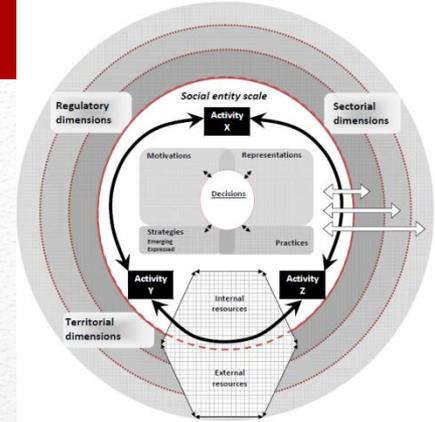
- **May always be achieved in various ways** → decisions and regulations
- Describing a human activity implies defining what its perimeter is based on: *work, income, production, value creation, the meaning, competence, space, period, qualification, responsibility, membership to a corporation, socialization, etc.*
- In many contexts, the activities are also very dependent on status (social, legal, fiscal)

Categorizing the motivations



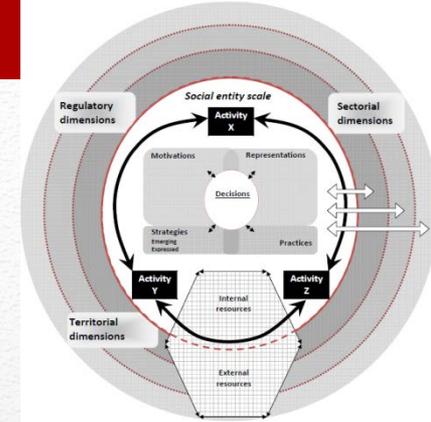
- Motivations govern the choice of activities, practices and the meaning that gives them the social entity.
- 7 categories of motivations:
 - “Economic” motivations
 - “Axiological” motivations
 - “Relational” motivations
 - “Identity” motivations
 - The motivations of the “body-at-work”
 - “Technical” motivations
 - “Aesthetic” motivations

Available resources to be considered



- “Human” resources
- “Natural” resources
- Material resources
- Financial resources
- “Informational” resources
- Identity resources
- Social resources

Activity system = a new perspective



- The actor and the system
- Not only applied to poor people
- Importance given to the analysis of decision-making and practices
- Considering the poly-rationality of the actor in a systemic perspective.
- Imperative contextualization of the system and its environment
- Examination of the historicity (micro and social)
- Relationships to the environment (both a context and a product of the activity).

The activity system framework creates new research perspectives and opens the way to design new support tools for the agricultural advisory as we did it in two projects

An aerial photograph of a vast, terraced tea plantation in a mountainous region. The terraces are arranged in a complex, wavy pattern across the hillsides, creating a rich, textured green landscape. In the center of the image, a small cluster of buildings, including a prominent red-roofed structure, is visible, surrounded by more lush greenery. The overall scene is a harmonious blend of human agriculture and natural topography.

*Thank you for
your attention!*

