Searching for social peace: A theory of Justice to determine the nature of impacts in social LCA

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1. Context and problem

The social life cycle assessment is a method under construction. It is used to determine the social impacts caused by one change in one life cycle. A crucial question is which categories of impact should be assessed. We must generate a theoretical framework to determine "what is worth in the social world" before answering this question.

Herein, we discuss approaches that are explicitly devoted to life cycle assessment. In sociology, the Ecological Modernisation theory (Mol and Spaargaren, 2000) addresses changes in policies and States to overcome the deficiencies of the traditional bureaucratic State in environmental policymaking (Buttel, 2000) that benefit « private eco-efficiencies ». In economics, Feschet and Garrabé (2013) are concerned with development. They articulate the Multiple Capital Model with the concept of « Capacity » that stems from Sen's Capability concept and is used for all types of capital. In practical philosophy, Reitinger et al. (2011) also refer to Sen and Nussbaum's Capability concept and apply it to different aspects of the central concept « individual well-being ».

The three approaches employ the strict methodological individualism. They address situations as pure and perfect competitive markets, even though this is rarely the case. In social sciences, two main schools of thought are in conflict. *Economism* assumes an individual logic, by which agents make rational choices to optimise the use of resources. In contrast, *holism* assumes that norms and values alone shape the causal determinism of choices; It is the "culturalist a priori". Regardless of the social theory, it must choose its position.

The three approaches are embedded in the sustainable development framework. We cast doubt on the idea that our societies are experiencing sustainable development. On the contrary, societies do their best to avoid sustainability (Blüdhorn, 2013). We can consider the social phenomena that surround ecological stakes as power struggles for income (Leroy, 2010).

Eventually, the three approaches are uninformative regarding the expectation that the life cycle (after the change) will not only be the "best" but will also be permanent.

While life cycles involve areas with various geographical scales and link different human groups (southern workers and northern as well as southern consumers, etc.), the permanence issue raises specific concerns.

We suggest setting a normative theoretical framework to social life cycle assessments to consider these concerns.

2. Towards a theoretical framework for social LCA

2.1. A theory of what is worth in the social world

The goal of this work is to discuss the nature of the impacts that are relevant to a social LCA. The theoretical framework is based on the following premises.

A third option lies between strict methodological individualism and holism. Searching for the foundations that underlie agreements that facilitate social peace (outside of violent conditions[1]), Boltanski and Thévenot (1991) highlight the role of "conventions". The only legitimate justification for a widely accepted agreement involves establishing justice between humans. A common system of constraints (Thévenot, 2002) called « Grammar » of political and social connections, provides a framework for interactions (Piteau, 1992). Individuals have the capacity to change the particular register of Justification that they embrace, depending on the circumstances (Thévenot, 2004).

The general context is not sustainable development. To date, humans live in a context of resource scarcity and a lack of available life milieu per inhabitant. We assume that social life cycle methods must be constructed in the context of no growth (Georgescu-Roegen, 1995). The social phenomenon that must be understood is how to "live together in the world" (Thévenot, 2004) despite these conditions.

Different groups of humans are involved in each step of the life cycle; they are linked by the life cycle, even if they do not know one another. Diverse groups can live a peaceful and permanent coexistence if they feel equity among one another through shared created / destroyed values, stemming from life cycle changes.

In the context of growth scarcity, the question for social assessment becomes the following. How is permanent social peace obtained or preserved? Social peace is unavailable without an agreement to live together. In a particular case, people must discriminate between what is good and what is wrong (Boltanski, 1990). The book « De la Justification » by Boltanski and Thévenot (1991) is the « discours de la méthode » of social science based on such an agreement. The authors suggest the model of the sense of Fairness and common good, based on practical experiences. Neither universalist nor totally pluralist, the Grammar opens the intermediate path of limited plurality for models based on such an agreement (Piteau, 1992). Boltanski

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1   Violence is defined as an act that disrespects justice without explanation (Boltanski and Thévenot, 1991).

and Thévenot demonstrated that an apparent plurality among concepts of Justice relies on the same common Grammar. This Grammar is constructed from proposals regarding the state of the World (referred to as « axioms ») on which people must agree before reaching particular agreements. Thévenot (1993) states that the concept of Justice is relevant for universal issues; he prefers the term Ethics (a concept of Justice scaled down to consider more local common goods), when it comes to more limited issues. The changes in life cycles, therefore, confront Ethics, which are established by human groups to live in peace together. Determining the way that Ethics are affected by change is an accurate means of assessment when it cares about social peace. The reference state is never « tabula rasa » in the social domain.

2.2. A normative conceptual framework for social LCA

2.2.1. Area of protection-Involved groups

In the vocabulary for life cycle assessment, the « area of protection » to be established is « permanent social peace ». We suggest assessing change x based on the potential change it entails for the capacity of the human groups involved in an agreement. The relevant question entails whether Ethics articulated by the human groups would be upset by change x. Ethics are rooted in a common proposal on the state of the world (table 1).

2.2.2 . The social impacts subject to the assessment

The table 1 shows axioms of the Grammar of Justice implemented for the local common good (first column) and the conditions for the axiom to occur (second column). The third column suggests the social impacts of change x subject to the assessment.

The nature of the worth is determined by the nature of the local common good. We provide two examples. If the local common good is the reputation of the city as a tourist area, the group of equivalent humans is formed by the inhabitants, the highest state of worth is for the person who directly contributes to the area's reputation (militant hotelkeeper or citizen flourishing balconies), despite a person who litters in the street, who is considered to be small. If the local common good is "traditional family farming in the region", the group of equivalent humans consists of all people who work in the agricultural fields. The highest state of worth is considered as one who ploughs the ground in accordance with tradition; the small is an "industrial" farmer. Clearly, an important change x in the life cycle (a new plant is created in the city devoted to tourists, or the change x causes an agricultural industry to disappear) might upset the local common goods.

Table 1: Social impacts subject to assessment

Axioms describing one local common good	Conditions for the axiom to occur	Social impacts subject to assessment in the group
A1 A definition of a common humanity : There is a group of equivalent humans	To be alive as well as in good health and considered equal to the others with regard to rights	Changes in mortality, health, and equality with regard to rights
A2/A4 There are different possible states for the actors (at least one small and one higher state of worth)	Searching for higher state of worth	Changes in the search for the higher state of worth
A3 A common dignity: In the group, everyone has equal power to reach* higher states of worth	The potential for reaching higher state of worth is fair	Changes in the fair access to higher state of worth among the group
A5 Reaching higher state of worth requires a sacrifice	The value of the sacrifice is acknowledged	Changes in the value acknowledged to the sacrifice
A6 There is a local common good, specifying the welfare associated with each state of worth, and which benefits other actors	The value of the local common good is acknowledged	Change in the search for higher state of worth

* Under this condition, ideals that assume special physical characteristics (breaking sports records or eugenics) are excluded from Ethics.

The life cycle change (for instance, the industry evolves such that it requires a less populated work force) might affect health, if not mortality, among the group. However, it might also only affect part of the group (only the foreign agricultural workers) such that they are no longer considered to be equal to the others with regard to rights. As shown, we do not emphasise "basic human rights" but "equivalent human rights" among the group.

2.2.3 Two aspects of the convention that the agreement is based on

A change in the life cycle might affect the basis of the former agreement in two ways. Either by modifying (1) the characteristics of the persons, which facilitated their agreement, or by affecting (2) the local common good. For instance, imagine a society of potters, which entails a new numerical esoteric technology that modifies the rights of who master it compared to those who do not (case 1). The previous local common good was "creating a hand-made quality pottery". If the new technology is used, the new common good might become "creating a pottery using the numerical technology" (case 2). Considering both cases, we make the following distinction.

- On one hand, axiom 1 provides people equivalent dignity. One question is whether change x will strengthen or impede this axiom?

- On the other hand, other axioms explain the formulation of the previous local common good before change x. The question is whether and how change x will affect the local common good ?

The changes involving axiom 1 produce generic impacts. Therefore, it is a relevant consideration, whatever the ground. Thus, we can establish the generic relationships to assess them. In contrast, it is impossible to know whether a local common good will be threatened (or strengthened) by change x and its nature without a specific inquiry. We require a ground survey (involving experts). Eventually, we must combine the assessments from generic relationships with a specific assessment to provide a satisfactory evaluation of the social impact from change x.

The table 2 highlights the social impacts subject to assessment and suggests issues that indicators should consider. Certain indicators are linked with realising axiom 1 (in italics), while the other indicators must be determined on a case-by-case basis because they are relevant to a local common good, which is always specific.

Table 2: Suggested issues for an assessment of social change

Social impacts subject to assessment	Comments	Issues to be considered
Changes in mortality and health	Within the group	Changes in life expectancy, life expectancy with good health, infant mortality, and morbidity etc.
Changes in equality with regard to rights	Within the group	Increased inequality with regard to rights (e.g., income and training inequalities)
Changes in the search for worth ; the value of the sacrifice; and the nature of the local common good	The question assesses the change in the formula of the local common good.	Changes in motivation, culture, etc.
Changes in fair access to worth	The question is the meaning of the local « dignity », regarding the local common good.	Changes in local dignity for certain group members

The design of the human groups under scrutiny must be accurate. Adding plant workers and plant owners is meaningless, except if they have an established local common good. Similarly, users who do not know each other do not compose a relevant group. The relevant human groups are the groups who have elaborated a local common good. A life cycle always involves several human groups, each often include a local common good.

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2.2.4. Permanence when many human groups are involved

Life cycle changes are often motivated by the expectation that the value chain underlying the life cycle will become more permanent. In the value chain, the participants share the created values, including money, cultural values, or prestige, among other considerations. For a permanent life cycle, it is preferable that everyone thinks that he/she draws some value from the value chain. Large businesses understand that contradicting the opinions and values of society may endanger its future (Gabriel et Gabriel, 2004). Clues that the evolution is fair include the following.

- change x improves the wages above fair wages
- change x improves the work conditions
- change x improves the reach to goods/services for users or consumers (Musaazi et al, 2013)
- change x improves the recycling rate of the good, among other considerations

These issues provide information on the likelihood whether the value chain will become more permanent. They provide important clues to its success, although it is the interpretation by the actors that is relevant.

3. Discussion and Conclusion

Under this theoretical framework, Dreyer et al. (2006) are correct to place such importance on dignity. Here, dignity is not universal dignity, but dignity that ensures equality with regard to rights within the human group.

The framework justifies considering certain specific impacts (determined based on the local common good) and generic impacts. Social peace does not only stem from tension caused by value chains. But value chains can strengthen or impede social peace (Neilson and Pritchard, 2009). The theory provides a list of impacts and issues used to determine the indicators. Depending on the conditions, one could develop different indicators to monitor the impact.

Isolated people are not considered. As we seek permanent social peace, the human groups who have developed an agreement to live together (any peaceful society, plant workshop, or user association) are especially relevant for the model. As such, fragile or marginal groups (children, disabled people etc.) that are unstructured are not specifically considered herein. We are concerned with the « rights and concerns of the poor » (Bryant and Jarosz, 2004) only under this condition. The groups that can upset social peace in a certain capacity will be highlighted.

As the Grammar of Justice was constructed from European political philosophers, its scope is European Ethics.

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