



• Bogotá, Colombia, 1989

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# Agency Scaffolding: From Anthropocentric to Relational Action. A Critical Review



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Andaime da  
agência: do  
antropocentrismo  
à ação relacional.  
Uma revisão crítica

Andamiaje de  
la agencia: del  
antropocentrismo a la  
acción relacional. Una  
reseña crítica

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## ABSTRACT

Values are in dialectic co-construction. Values are relational, that is, they emerge when two or more forces engage with one another to bring forth plural realities. Similarly, as an emergent property of the encounter between forces, social agency, or capacity to act, is not an exclusive domain of the human. This review paper is a critical approximation to the Agency Theory (AT) in the social sciences today. (1) We review AT in several scholarly fields to then (2) discuss critical approaches in race and actor-network theory; then, (3) we probe AT in ecological economics with a focus on collective action and (4) propose a relational concept of agency based on this critical review. (5) To illustrate a paradigm shift in social agency—from anthropocentric to relational—we close with a call for "a pedagogy of care and the defense of life" beyond human-only approaches to social agency.

**Keywords:** agency theory; post-anthropocentrism; relationality; pedagogy of care; earth

## RESUMO

Os valores estão em coconstrução dialética. Os valores são relacionais, ou seja, emergem quando duas ou mais forças interagem entre si para gerar realidades plurais. De maneira similar, como uma propriedade emergente do encontro entre forças, a agência social — ou capacidade de agir — não é um domínio exclusivo do ser humano. Este artigo de revisão oferece uma aproximação crítica à Teoria da Agência (TA) nas ciências sociais contemporâneas. (1) Revisamos a TA em diversos campos acadêmicos; em seguida, (2) discutimos abordagens críticas relacionadas à raça e à teoria ator-rede; depois, (3) investigamos a TA na economia ecológica com foco na ação coletiva; e (4) propomos um conceito relacional de agência com base nesta revisão crítica. (5) Para ilustrar uma mudança de paradigma na agência social — do antropocentrismo para a relacionalidade — encerramos com um chamado a "uma pedagogia do cuidado e da defesa da vida" além de abordagens exclusivamente humanas sobre a agência social.

**Palavras-chave:** teoria da agência; pós-anthropocentrismo; relacionalidade; pedagogia do cuidado; terra

## RESUMEN

Los valores están en coconstrucción dialéctica. Los valores son relacionales, es decir, emergen cuando dos o más fuerzas interactúan entre sí para generar realidades plurales. De manera similar, como una propiedad emergente del encuentro entre fuerzas, la agencia social, o la capacidad de actuar, no es un dominio exclusivo del ser humano. Este artículo de revisión ofrece una aproximación crítica a la Teoría de la Agencia (TA) en las ciencias sociales contemporáneas. (1) Revisamos la TA en varios campos académicos; luego (2) discutimos enfoques críticos en torno a la raza y la teoría del actorred; después, (3) investigamos la TA en la economía ecológica con un enfoque en la acción colectiva; y (4) proponemos un concepto relacional de agencia con base en esta revisión crítica. (5) Para ilustrar un cambio de paradigma en la agencia social —de lo antropocéntrico a lo relacional— cerramos con un llamado a "una pedagogía del cuidado y la defensa de la vida" más allá de enfoques exclusivamente humanos sobre la agencia social.

**Palabras clave:** teoría de la agencia; posantropocentrismo; relacionalidad; pedagogía del cuidado; tierra

## Introduction

The principal-agent problem harkens back to Adam Smith (1937[1776]). It describes how the separation of ownership (i.e., land, infrastructure, money) from direct control, information asymmetries and risk preferences may enhance the agency cost for the owner. The "agency problem" thus concerns how to minimize this cost in transactional relations (Panda & Leepsa 2017).<sup>1</sup> While agency theory (AT) involves any type of organization and social relations, it has a limited explanatory power for modern-day transactions in a globalized society when only confined to the firm: AT has been tested in relation to the performance of companies (Zogning 2017), stewardship governance of family firms (Madison *et al* 2017: 347), among other areas. Examining the assumption that narrow self-interest always underlies agency theory, Bosse *et al* (2014) go a step further. They claim that perceptions of fairness mediate agency relationships through "positively and negatively reciprocal behaviors" (276), thus bringing a cognitive and ethical dimension to AT discussions. These approaches, however, are still limited to the individual agent in the context of the firm.

Insofar as the agency relationship can be defined as how one acts on behalf of another, agentic behavior, we argue, is ubiquitous and immanent to socio-ecological systems and encompass human and nonhuman actors (Kohn 2013). In what follows, (1) we survey several AT approaches in the social sciences; (2) discuss critical takes from race theory and actor-network theory; (3) probe AT in ecological economics with a focus on collective action. Beyond established regimes of knowledge in social theory (Esquivel-Silva 2023, Torchio 2022) lays a form of social agency that is non-anthropocentric, emergent, trans-cosmological, nested, and uncertain. We also (4) propose a concept of agency inspired by anthropological literature in Amazonia: *Rhizomatic Agency*. We believe that a rhizomatic or relational approach in AT forms the basis of a pedagogy of care for the defense of territorial life beyond human-only approaches to social agency (5).

<sup>1</sup> The principal-agent problem assumes that the principal or shareholder's interest and the agent's interests are not always aligned with each other.

## A survey of approaches in agency theory

Agentic behavior can adopt different names: "bureaucracy, organizations, professions, roles, markets, labor, government, family, trust, social exchange, and so on" (Shapiro 2005: 282). Despite the pervasiveness of agency relationships, the disciplines of economics and management still dominate AT debates. Sociological (Shapiro 2005), psychological (Shogren *et al.* 2017), environmental (Groeneveld *et al.* 2017), and ontological approaches (Gallegos-Riofrio *et al.* 2022) are increasingly populating the conversation. When it comes to cognitive approaches, for example, the so-called "causal agency theory" (Shogren *et al.* 2017) defines "self-determination" as the range of socio-psychological functions that "given actions perform for an individual" (55). Thus, the notion of individual "self-determination" constitutes a pivotal factor of agentic behavior with a wide range of applications. A rational choice model, this approach, nonetheless, dominates non-economic AT frameworks.

Yoon (2019) goes a step further. Drawing from Banduras' cognitive AT (1986)—which integrates four core properties of human agency: intentionality, forethought, self-reactiveness, and self-reflectiveness—Yoon proposes a "translational and implementational model" that exceeds individual factors. This approach concerns what she calls "reciprocal determinism" between the agent and the surrounding environment at the micro and macro levels (351). This frame attempts to expand AT models pervasively centered on the "self-determined" and "autonomous" individual. AT has been central to institutional theory as well. Abdelnour *et al* (2017) dissociate agency from individuals to suggest that social actors "*qua* occupants of roles and positions" enter the social stage and exercise agency (2017: 1775). Insofar as social actors can be groups and/or collectives, they propose a four-fold schema: "the willful actor, collective intentionality, patchwork institutions and modular individuals" (2017: 1792. See Ludwig 2017, chap. 2 "Plural Agency"). These agentic properties problematize the notion of willful individuals that exist prior to their modes of socialization. Beyond the archetypal individual as a proxy of social agency,

some institutional accounts consider everyday practices of situated agents “coping with the institutional complexities of their [social sphere of practice]” (Smets et al. 2013: 1279). However concrete and situated this approach may appear, on the one hand, the self-directed individual is the central category of this line of work as well (Ludwig 2017). Environmental sciences, on the other hand, have applied AT to address agent-based models of land-use change. An AT’s systematic review in environmental modelling, Groeneveld *et al.* (2017) survey defining features of agentic behavior including uncertainty, adaptation, learning, interactions, and heterogeneities of agents (2017: 39). Human decision models concerning the environment, they argue, are “primarily based on economic theories, such as the rational actor” (39), thus overlooking agential behavior beyond autonomous individuals making decisions with symmetric access to information and resources.

In sum, non-economicist AT approaches have attempted to decenter the individual, while attending to the roles they play in society: issues of institutional complexity (Smets 2013), reciprocal determinism between agent and environment (Yoon 2019), uncertainty and other socio-environmental factors (Groeneveld *et al.* 2017), are pivotal approaches in AT. Despite the widening of AT inquiry beyond the economic literature, there are important critical approaches to consider in detail.

## Critical approaches in Agency Theory

*Race and Agency Theory:* The fields of critical sociology and race theory have their own AT proposals. AT pioneering works claim that corporate managers are agents to shareholding principals (Jensen and Meckling 1976), which implies that the principal role of the agent is to secure shareholder value (Christiaens 2020). Yet, AT has moved beyond corporate governance to reconfigure state’s structure and power relations in what Christiaens calls a “discursive mutation” (409). Similarly, Ray identifies a double gap: organizational theory scholars tend to see organizations as race-neutral bureaucratic structures, while race and ethnicity scholars have “neglected the role

of organizations in the social construction of race” (2019: 26). Ray argues that organizations are racial structures (Ray 2019: 31) that may “enhance or diminish the agency of racial groups.” In other words, a racialized group has the capacity to act and influence their socio-ecological milieus (47).

Both the corporatization of the state (Christiaens 2020) and the racialization of organizations (Ray 2019) expand AT beyond corporate governance and race-free organizational dynamics. Nonetheless, these approaches are premised on a crucial pre-analytical assumption: the human is the only social agent. Whilst these critical approaches do offer an approach that is cognizant of inter-species hierarchies, they still operate within a human-only framework. Expanding sociology beyond human-centered AT approaches, Carter & Charles (2016) propose a theory of animal agency (Steward 2009). This “animal challenge”, however, (Carter & Charles 2016, 79) does not forfeit the discipline of sociology. Instead, it offers an opportunity to rework “its foundational concepts” (93) insofar as animals can be regarded as social actors as well (Carter & Charles 2016). This expanded model tends to create analytical hierarchies between humans and animals as social agents. ANT corrects this mistake.

*Actor-Network Theory:* A way to solving the hierarchy problem, Actor Network Theory (ANT)—a theoretical and methodological approach to social life (Nimmo 2011)—is based upon the assumption that all things in “society” and “nature” exist as changing networks of relationships (Latour 1996). In this way, things, processes, objects, concepts, nonhuman beings, and other relevant factors in concrete social networks have a symmetrical value in the context of the network insofar as they all co-participate as humans do. Developed by scholars Michel Callon (1986), Bruno Latour (2005) and John Law (1987), ANT can be better described as a “material-semiotic” approach because it deals with relations among things (material) and among concepts (semiotic), and between things and concepts. A highly influential AT with applications in several fields, ANT holds space for the nonhuman in a wide spectrum of socio-ecological relations (Mol 2010). Yet, this radical symmetry within the network might weaken the explanatory power of

the notion of agency in contexts with profound asymmetries of power between the actors involved. In a sense, there are important hierarchy-based and asymmetric relations between agents and agency events which require critical approaches as well as ANT to work in tandem.

Thus far, we discussed dominant theories on agency built on an all-too-human, rationalistic and individualistic framework; then surveyed some critical approaches on race and power relations and considered inter-species agency frameworks such as ANT. Critical approaches still insist on human-centered frameworks, while theories of inter-species agency often fail to consider power asymmetries and therefore tend to silence non-Western cosmologies. In what follows, we suggest a holistic framework that integrates human and other-than-humans (i.e., ANT), and takes seriously power relations across manifold social domains (i.e., race theory and the corporatization of the state). We probe some aspects of agency theory in ecological economics (EE). This highly interdisciplinary field reacts against the narrowness of environmental and resource economics, which applies conventional economics to environmental problems. EE approaches address the highly complex nature of the current global crises, while fostering a planetary ethics of care for all life.

## Agency in Ecological Economics

There is not a unified theory of agency (AT) in Ecological Economics (EE). However, there are explicit and implicit agency claims underlying a wide range of research problems in the field (See Otto et al. 2020, Kolinjivadi 2019, Fletcher and Buscher 2018, Lliso et al. 2020, Van Hecken et al 2015, Kemkes et al 2010). For our purposes, we have defined agency as agency relationship, that is, acting on behalf of another person, group, or institution (Shapiro 2005)—for example, when a manager acts on behalf of the owner of a company, or a congresswoman acts on behalf of the citizens of a country. More broadly, we define agency as an action that produces a socio-ecological effect of some kind, for instance when a judge declares the unconstitutionality of an environmental license; when two people play chess, or when a person pays a parking ticket (Ludwig 2017). Collective action theory is, perhaps, the most broadly used AT across a wide range of theoretical and empirical problems in EE (Ostrom 2010). Recognizing that important AT developments have emerged over the past five years, we conducted an AT search in four large databases between 1980—which dates EE origins—and 2020 to better illustrate the AT theoretical spectrum. The results obtained are both for “All fields” and for “Ecological Economics.”<sup>2</sup>

**Table 1.** Keyword search in four online databases: “All fields”

Keywords	Science Direct	Jstor	Wiley	SAGE-Journals
<i>Humanist approaches</i>				
“Collective Action”	18,924	58,404	22,882	21,658
“Principal-Agent”	9,573	14,438	7,454	4,315
“Agency Theory”	5,810	7,399	5,324	2,564
“Individual Agency”	3,272	7,490	4,370	3,146
“Agency relationship”	1,578	2,038	1,059	530
“Group Agency”	326	726	373	213
“Institutional Agency”	602	288	152	149
“Hierarchical Agency”	49	128	18	14
“Plural Agency”	10	15	12	5
“Nested Agency”	2	6	3	2

<sup>2</sup> The selection of the keywords was based on review AT papers by Panda & Leepsa 2017 and Shapiro 2005, as well as Ludwig’s *From Plural to Institutional Agency* [2017]

Keywords	Science Direct	Jstor	Wiley	SAGE-Journals
<i>Other modes of "agency"</i>				
"Material Agency"	344	518	252	272
"Relational Agency"	97	59	96	90
"Animal Agency"	100	196	114	63
"Spirit Agency"	7	121	41	26
"Plant Agency"	49	28	18	8
"Rhizomatic Agency"	0	0	0	0

Based on this preliminary survey, we can draw the following general observations: (a) a human-centered approach to agency dominates social and environmental research; (b) "collective action" dominates agency theory both in the field of ecological economics and other fields; (c) there is virtually no reference to "other modes of agency" beyond the human in EE under the selected keywords. However, (d) there are substantial references with the proxies *relationality* and the *nonhuman* where we can pin down different agency claims, and how they are used across a wide spectrum of theoretical and empirical problems in EE; (e) the notion of *material agency* is the dominant agency concept beyond human-centered approaches; (f) there is a substantial production of literature under the "Indigenous AND Agent" proxy (229 references)<sup>3</sup>. The results are substantially reduced when we combine ["Indigenous and Agent"] and ["Relationality"] with only 30 references. Based on these preliminary results, we have selected the following key words for the rest of our review: 1) *Human-Centered Approaches*: ["Collective Action"]; 2) *Other Modes of Agency*: ["Indigenous AND Relationality AND Agent."] The selection criterion was three-fold: 1) works published between 1980 and 2020, 2) predominance of keywords (see table 1), and 3) direct claims about agency theory in humanist and other agency approaches.

<sup>3</sup> Results in *ecological economics* – key words and number of references in specialized journals: collective action (450 results); principal agent (65); individual agency (25); agency theory (8); agency relationship (3); institutional agency (2); hierarchical agency (1); group agency; plural agency and nested agency (0). *Other modes of agency*: Indigenous AND agent (229); relationality (192); nonhuman (49); Indigenous AND Relationality AND Agent (30); Indigenous AND nonhuman AND agent (3); relational agency; material agency; animal agency; spirit agency; plant agency; rhizomatic agency (0).

*"Collective Action" as an index of agency claims (100.000 + results in "All fields")*: Broadly speaking, collective action "occurs when several individuals are required to contribute to an effort in order to achieve an outcome," for example, when members of a local community build a communal house, or a group of peasants maintain an irrigation system for their family crops (Ostrom 2004: 1, 2010). With a wide range of disciplinary approaches and applications (Kana-zawa 2000, Van Vugt & Van Lange 2006, Kopelman 2009), collective action theory has been particularly influential in the field of natural resources management (Ostrom 1990, Gibson, McKean & Ostrom 2004; Agrawal and Ostrom 2001; Kurian & Dietz 2004; Poteete and Ostrom 2007. An approach in ecological economics in Polski 2005). While collective action is based on joint action (Ludwig 2017), the agency problem becomes relevant when nonparticipants in a collective action event benefit from the joint action of others (i.e., free riding).

In the seminal *The Logic of Collective Action*, Olson (1965) suggests that "[i]t is often assumed that groups of individuals with common interests are expected to act on behalf of their common interests much as single individuals are often expected to act on behalf of personal interests." (1965: 1) For him, where the benefits of cooperation can be obtained "without contributing to the costs" (Gillinson 2004: 8), "rational, self-interested individuals will not act to achieve their common or group interests." (Olson 1965: 2) Olson thus suggests different ways to solve this problem for larger groups, namely, positive, and negative selective incentives. A positive "selective benefit" or incentive is a reward contingent upon taking part in the action (Dowding 2013. See Ioannou 2012),

while a negative selective incentive is a penalty "imposed on those who do not" take part in the joint action for a common good (Dowding 2013). Although much has changed since 60's, the notion of a rational and autonomous individual appears to be the core pre-analytic assumption of collective action as well (a critical examination of self-interest in collective action in: Ioannou 2012, Green and Shapiro 1994, Muller and Opp 1986). Finally, Ostrom (2000) transparently illustrates this individual bias as follows: "I assume multiple types of players—rational egoists, as well as "conditional cooperators" and "willing punishers"—in models of nonmarket behavior." (2000: 137).

*"Collective Action" as an index of agency claims in Ecological Economics (450 results):* How do selected texts in ecological economics use collective action (CA) theory? Scholars use CA theory in several ways. Beyond the establishment of a central authority, privatization and self-governance are widely used models for collective action, Yang and Wu (2009) suggest that "scholars who have comparative advantages in knowledge and information over other social actors (such as herders and governments) can help game players resolve their collective action dilemma(s) in social-ecological systems under certain conditions." (2009: 2412) This positive outcome, they argue, can be achieved, for example, via the participation of information providers, governmental agents, scholar-entrepreneurs, and pure game players (Ibid). Similarly, Melindi-Ghidi *et al.* (2020) study the role of "environmental knowledge brokers" to suggest that they can be effective where farmers have "low environmental awareness." This approach privileges "expert knowledge" over "local knowledge".

Moreover, Whittaker (2011) argues that contrary to "the caricature of (Adam) Smith (...) as a promoter of self-interest, he recognized the value of other-regarding behavior," which has a direct bearing on environmentally oriented collective behavior (2011: 33). Whereas these and similar approaches pose alternatives to standard models of collective action, they seem to take for granted the idea of rational decision-making actors *qua* knowledge information holders or environmental information brokers (experts). They quickly discard local knowledge, non-lettered

agencies, and values as valid ways to resolve collective action dilemmas. Critical scholarship on Payments for Ecosystem Service (PES) offers a substantially different approach to common-pool resource dilemmas by incorporating plural values and participatory methodologies (See Kosoy and Corbera 2010).

*"Collective Action" and Plural Values:* PES "promote ecological stewardship and conservation behavior through provisioning of economic incentives often as market-inspired transactions." (Kolinjivadi *et al.* 2019: 489). Yet, collective action claims are not uniform across PES literature (e.g., Washborune *et al.* 2019, Smith and Day 2018, Van Hecken *et al.* 2015, Kemkes *et al.* 2010). In some cases, the focus is on evaluating the effectiveness of economic incentives to influence collective behavior in particular ways (Van Hecken *et al.* 2015), or probing when and how "individual and collective rewards are conditional on a minimum collective conservation level being achieved" (Midler *et al.* 2015: 394). Moreover, when Indigenous peoples are involved in decision-making processes, collective action claims revolve around Indigenous preferences and values to evaluate PES incentives (Lliso *et al.* 2020).

These approaches share a critique of the overly rational and overly structuralist models of collective action, thus calling for greater attention to the political, social, and cultural values involved in decision making processes (Van Hecken *et al.* 2015, Kosoy and Corbera 2010, Kosoy *et al.* 2007). In addition, these approaches conceive socio-ecological problems as collective action (social) dilemmas rather than market failures (Muradian and Cardenas 2015). In fact, the classic market failure that results from incentives to free ride on the payments of others is a common point of contention in collective action/PES literature (Smith and Day 2018: 36). Although PES schemes are generally studied using collective action lens, this is but one instance of how collective action theory is used as the preferred agency framework to study socio-ecological problems in EE.

Let us take a closer look at one possible limitation of this framework. Collective action "occurs when several individuals are required to contribute to an effort in order to achieve an outcome"

(Ostrom 2004, 1; Ostrom 2010). Although collective action (CA) theory probes different incentives to realize a desired collective result, several PES accounts, again, assume the individual as the archetypal unit of action simply because CA agency claims typically locate decisions at the individual level (i.e., individual incentives to perform *x* or *y* activity) and outcomes at the collective level (i.e., building an irrigation system for a rural community). Therefore, Collective Action theory takes for granted the distinction between the *locus* of decisions (the individual) and the *impacts* of the desired outcome (the collective or plural action itself as aggregate individual behaviors). In the words of Kirk Ludwig, "the central problem of institutional (collective) action is to understand how the structure of institutions is grounded in more primitive forms of joint intentional action, and how those more primitive forms of joint intentional action are expressed through those institutional structures." (Ludwig 2017, 2).

Here, the agency problem is about defining the locus of intention, that is, determining whether intention is an inherent attribute of either individual humans or collectives. For Ludwig there are no group or collective actions *per se* and therefore there are no collective agents as such. Only aggregates of individual "I-intentions" (Tuomela 2000, Tuomela and Miller 1988). To be sure, "there is nothing strictly speaking that is a joint action in the sense in which there are actions in the case of individuals. Actions in the case of individuals are those events of which they are primitive agents." (Ludwig 2017, 11) According to this atomized account of collective action as the aggregate of *I-intentions*, individuality is a function of human and individual cognition: "(...) as there is no joint agent of what groups do (...), there is no need to postulate group level cognitive states to explain it." (Ludwig 2017, 12) Ludwig, however, acknowledges that this is not a universally shared view (Ludwig 2017). In fact, the idea that groups have minds or "are agents in their own right, or are subjects of cognition, decision, intention and action" (Ibid) has a robust multi-disciplinary support (See Korsgaard 2008, Tollefsen 2002a, 2002b, Goldstone and Theiner 2017). How does a social multi-criteria evaluation approach address the problem of atomized agency

aka the aggregation of I-intentions?<sup>4</sup> (Munda 2004) EE scholars constantly produce agency claims within multi-criteria analysis frameworks that assume a collective or joint action.

Kolinjivadi *et al.* (2015) apply social multi-criteria evaluation<sup>5</sup> as a collective "decision-support framework to determine the acceptability and payment vehicle of PES within a set of alternative policy considerations for a complex ecosystem management decision." (2015: 99) The authors highlight the "legitimacy that different PES designs may have for improving resource quality and capabilities for well-being" of local people as the main decision-making agent (Ibid. See Garmendia and Gamboa 2012). Other scholars frame agency in terms of participation and evaluation (Antunes *et al.* 2009), participatory multi-criteria analysis (Garmendia and Gamboa 2012), and participative multi-criteria analysis (Paneque Salgado *et al.* 2009). In fact, the use of multi-criteria evaluation "in combination with participatory approaches provides a promising framework for integrating multiple interests and perspectives [as] diverse individual priorities can be grouped in a reduced set of social preferences by means of cluster analysis reinforced with a deliberative appraisal among a wide variety of social actors." (Garmendia and Gamboa 2012, 110).

Although the decision-making process involves deliberation and makes room for disagreement, the process itself, again, seems to depend on a pre-analytic and archetypal individual human agent, despite its participatory origin. After all, "individual priorities", "deliberative appraisal" and "irreconcilable positions" all presuppose cognitively atomized "I-intention" that engage in rational deliberation processes in ever increasing (human) participatory rings. Is there room for relational agency in

4 Multi-criteria assessment (MCA) "(...) has the potential to take into account conflicting, multidimensional, incommensurable and uncertain effects of decisions explicitly enabling it to focus more on the decision process itself, and not on a final result (Munda, 2008)." See Antunes, Paula. Multicriteria assessment (MCA) In <http://www.ejolt.org/2015/02/multi-criteria-assessment-mca/> (Viewed Aug. 23, 2024)

5 Social Multi-Criteria Evaluation (SMCE): "Like other evaluation processes, multi-criteria assessment (MCA) needs to deal with different value systems when facing a real problem of social choice...". Antunes, Paula. Social Multi-Criteria Evaluation (SMCE). In <http://www.ejolt.org/2015/02/multi-criteria-assessment-mca/> (Viewed Aug. 23, 2024)

decision-making processes, that is, an agency theory that involves human and more-than-human assemblages such as the locus of intentions, or the minimal cognitive unit? Before we answer this question in the next section, the table below summarizes our AT findings (1980 – 2020) around

the following thematic axes: 1) Definition (What is 'agency?'); (2) Agent/membership (who is the agent?); (3) Intention/features (what does the agent want? Characteristics); (4) Agentive functions (what is the role of the agent?); (5) Discourse/action (how is the decision produced?)

**Table 2.** Summary - Agency: From Individual to Relational or Rhizomatic. Based on multiple sources

Field	Social			Socio-Ecological	
	Individual	Plural	Institutional	Participatory (Multi-Criteria Assessment -making)	Relational or rhizomatic
Definition	-Acting on behalf of another. (Shapiro 2005) -Agency relationship.	-Aggregation of individuals contributing to a collective outcome. (Ostrom 2004, 2010)	-Institutional action based on role in an institution. -Institutions as networks of inter-related roles and functions occupiers perform. (Ludwig 2017: 5)	-Dealing with different value systems when facing a real problem of social choice. -Participatory MCA processes with input of a broader group of actors to account for different interests and values. (Munda, 2008)	-Co-emergence of humans and other-than-humans.
Agent /membership	-Individuals Intentionality, forethought, self-reactiveness, and self-reflectiveness (Banduras 1986); Willful actor and modular individual (Abdelnour et al. 2017)	-Groups Collectives Aggregation of individual agents.	-Institutions -Patchwork institutions (Abdelnour et al. 2017) Institutional membership as socially constructed. (Ludwig 2017)	Communities -Local people (Garmendia and Gamboa 2012). -Scholars as information providers. (Yang and Wu 2009)	-Socio-ecological collectives, other-than-human, (dis-) continuities – physicality and interiority. (Descola 2013)
Intention/features	-I-Intentions (Ludwig 2017) - Solving Principal-Agent problem	-Joint intentional action (Ludwig 2017) -We-intentions -Collective intentionality (Abdelnour et al. 2017)	-Create norms -Coping with institutional complexities. (Smets et al. 2013).	Participatory decision-making. -Uncertainty, adaptation, learning, interactions, heterogeneities of agents. (Kosoy et al. 2007, Groeneveld et al. 2017).	-" <i>cuidado de la vida en el territorio</i> "/ caring for life in the territory (Bravo et al 2023).

Field	Social	Socio-Ecological
Agentive functions	Minimizing agency costs. -Management "Procurement of shareholder value." (Christiaens 2020)	- Contribute to a collective outcome. (Ostrom 2004, 2010)
Discourse/action	-I buy a blue car -I read a chapter on agency theory.	-We buy a house -We build a community well.
		Normative mediation of plural actions
		Participative multi-criteria analysis (Paneque Salgado <i>et al.</i> 2009). -Improving resource quality and capabilities for well-being making agent (Kolinjivadi <i>et al.</i> ; Garmendia and Gamboa 2012).
		The Constitutional Court declared the personhood of the Atrato River.
		-An intercultural research group conducted research on traditional justice systems. Participatory techniques (Antunes <i>et al.</i> , 2006).
		-Socio-ecological practices; corporality; commensality; 'ritual';relational decision-making. -Humans, plants and invisible peoples co-produce decision in Amazonia.

As this theoretical synthesis aims to demonstrate, most AT is conceptually moving closer to an instrumental ethics—and we would add, pedagogy—given its “tendency to understand [social] transformation through dualistic (...) representations of nature and society.” (Kolinjivadi 2019, 32). Such agency fragmentation leads to a dualistic analysis that leaves aside one term of the relation. Instead, a relational agency, or capacity to act *with* others can be broadly defined as an emergent property of the encounter between human and more-than-human forces (Vargas Roncancio 2024). Based on our AT findings, we highlight relationality as an immanent driver of evolutionary processes from sub-atomic particles to entire socio-ecosystems. This ontological premise has a crucial impact on pedagogy, particularly in our teaching and learning actions towards the care of life and the protection of biocultural diversity.

One of the core tenets of a relational form of pedagogy is that human and more-than-human beings are members of a community of life. Building upon well-established critique of modern ontologies (Escobar 2008), a pedagogy of care based on

relational agency challenges those theories, practices and institutions that separate “nature” and “culture,” “human” and “non-human”, and “body” and “mind,” among other binaries. It shows how such partitions inform teaching and learning practices with tangible material impacts on territories. A relational pedagogy thus proposes value plural alternatives that de-center the archetypal individual human as the locus of intention and therefore, the main pedagogical agent. A pedagogy that *cares* for the community of life reclaims the relation as the minimal cognitive unit in the learning experience. Since a relational pedagogy troubles dualistic thinking in teaching and learning, this relational approach to AT is consistent with the deeply interdependent logics of biocultural diversity and territorial life writ large. In the next section, we argue that human language and social institutions are intrinsically constrained in their ability to address planetary crises such as biocultural loss precisely because humans are only one among many agential forces within broader relational or rhizomatic dynamics. This reckoning is crucial for a pedagogy of care of the community of life, and the protection

of biocultural diversity in interdependent territories such as the Andean-amazonian region.

## Towards a Relational Concept of Agency

Rhizomatic agency, broadly speaking, can be defined as a symbolic root system beneath our established regimes of human perception (see Esquivel-Silva 2023, Torchio 2022). We use the expressions "relational" and "rhizomatic" interchangeably to signal the entangled, subterranean, and often unpredictable dimensions of the multiple agencies working together in our learning processes. A rhizomatic approach to agency theory thus lays at the basis of a pedagogy of care in times of accelerated biocultural loss, because it re-centers the deeply entangled dynamics of territorial life in our pedagogical practice: from the school to the community and the territory.

Relational approaches in social theory often fail to explicitly recognize Indigenous conceptual contributions to agency theory and pedagogy.<sup>6</sup> For Indigenous communities in Latin America, animals, plants, mountains, and rivers, among other beings, hold a form of interiority or soul endowed with attributes "[...] identical to those of humans, such as reflexive consciousness, intentionality, and affective life, and respect for ethical principles" (Descola 2013:14). The ontological models of "naturalism" and "animism" predominant in Western and non-Western cosmologies respectively, are of particular interest for this argument concerning pedagogical action. Naturalism contends that nature is an independent empirical existent subject to different modalities of human description and control. Animism, on the other hand, considers all beings as sentient and cognitive, that is, all beings have "interiorities" and are therefore capable of producing value regardless of human intention and attribution (Descola 2013).

Following Indigenous understandings of agency, we move beyond the "I-intention" of the individual human self as the minimal cognitive unit and, instead, advocate for a subterranean and unpredictable collective agency as the minimal cognitive unit in

pedagogical practice. In other words, the rhizome *teaches* and *learns*, not the human.

## Towards an Ethics and Pedagogy of Care: Relationality and Agency Beyond the Human: Concluding Remarks

A pedagogy of care rests on an agency theory that takes seriously our radical interdependence with other-than-human forces in times of pervasive socio-ecological disturbances. In this paper, we argue that such an agency, or capacity to act, is relational or rhizomatic: it comes into being when multiple forces engage with one another to bring forth plural realities. As an emergent property of the encounter between forces, social agency is not an exclusive human domain. To probe this point, we examined AT in various disciplines with a focus on race theory, animal studies, and actor-network theory. In addition, we described various aspects of the "agency problem" within the field of ecological economics, focusing on collective action as the preferred articulation of agency in the field. Against this background, we proposed a posthumanism-inspired concept of agency that goes beyond atomized, individualistic, and rationalistic agency proposals that are recurrent in collective action approaches at present. This approach has far-reaching implications for social thought, particularly pedagogical practice. We argued that agency is the capacity to act and produce effects through one's actions in the world. In this sense, agency is (a) non-anthropocentric because it involves humans, plants and other beings that co-participate in the agentic assemblage as a minimal unit of cognition (i.e., learning). Moreover, agency is (b) emergent because it is not reducible to the sum of its parts. In other words, agents come into being as they encounter each other. (c) In addition, agency is uncertain because it may unfold in contexts of asymmetric power relations that lead to often unpredictable outcomes: learning is a surprise where radical alterities are involved.

In our all-too-human regimes of perception *learning something well*, that is, having complete or close to complete information, is essential in decision-making

<sup>6</sup> See Gould, R.K., Pai, M., Muraca, B. et al. (2019) for a notable exception. Also, Hilmes and Muraca (2018) on relational values. REFERENCES MISSING

processes insofar as those decisions ensue the act of "learning something well." However, information is not always essential for decision-making in cases where the will of a non-human agents is rendered essential for that decision to unfold. For instance, we may engage in environmental decision-making in contexts where our all-too-human knowledge can be put on hold or even be yielded to the will of more powerful beings of a given territory. Decisions can sometimes be unexpected. Not knowing something, for example, ignoring who the agent is in a particular decisional field, can be crucial for decision-making in the territory. However, not knowing is not equivalent to willful ignorance, but rather to understanding the limits of what we can possibly *know*. A pedagogy of care reckons with the agency of non-visible beings of the territory as co-participants in an agential assemblage, and yet, we cannot always learn about them by their *forms*, but rather by the *effects* their actions force upon us. In other words, invisible beings are crucial agents of biocultural life, and their actions are tangible in the everyday. They are part and parcel of a pedagogy of care that takes seriously the relational dynamics of the multiple dimensions of the territory. We firmly believe that more-than-human agencies should be at the forefront of contemporary debates around socio-ecological transitions and pedagogies worldwide. Our nonhuman companions can teach us new pathways to "mutually enhancing relationships" between humans and Earth (Berry 1999, 61), towards a new planetary ethics of repair, care of life, and co-responsibility where all beings are regarded as social agents and members of a global community of life. Such an effort requires new conceptual tools. A rhizomatic agency aims to contribute to this endeavour.

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## Diálogo del conocimiento

Este artículo presenta una revisión teórica referente a la Teoría de la agencia y el pensamiento rizomático, que permite conectar los asuntos del cuidado de la vida, la protección de territorios bioculturalmente diversos y el lugar de las pedagogías relacionales y la educación, con discusiones contemporáneas como la capacidad de agencia de los seres más que humanos y la relacionalidad, como una fuerza que dinamiza procesos en distintas escalas y permite mantener las comunidades de vida en el planeta y el cosmos.

Lo anterior complejiza los abordajes teóricos en este campo de problematización, consecuente con un enfoque epistemológico y ontológico plural, apostándole a una "pedagogía relacional que cuestiona el pensamiento dualista en la enseñanza y el aprendizaje (...) y resalta la importancia de la interdependencia de la diversidad biocultural y la vida territorial en general".

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