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Reframing Resilience Narratives for (Rural) Communities Using the Actantial Model

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Abstract: As polities of all kinds are under pressure to achieve socio-environmental sustainability and resilience, existing assessment tools diagnosing communities' vitality assets and vulnerabilities face challenges. These include grappling with incomplete data, incongruent models, and diverse indicator schemes from various scientific and professional domains. Moreover, these assessments draw upon multiple, sometimes unclear, and occasionally overlapping conceptualisations of 'sustainability' and 'resilience'. This complexity makes monitoring system dynamics difficult, particularly in smaller rural communities with limited resources. This essay addresses this science policy and epistemic dilemma by proposing Greimas's actantial model as a solution. The model, initially designed for understanding language and stories, is adapted to connect and integrate diverse data and indicator narratives across disciplines to inform policies at various levels of governance. This essay discusses recent debates on the conceptualisation of sustainability/resilience and its associated challenges, exploring how Greimas's model may allow more constructive dialogue about conflicting views on resilience and sustainability. The model is presented as a planning template to foster communication across disciplines, social actors, and polities. The conclusion emphasises the model's simplicity as a tool to overcome jargon, bridge communication gaps, and provide guidance for smaller rural communities facing resource constraints in assessing and implementing initiatives for sustainability and resilience.

Keywords: resilience theory; land use planning; rural sustainability; planning narrative; actantial model; Algirdas Julien Greimas

1. Introduction

Faced with the political imperative to remain 'sustainable' or to become 'resilient', polities from all governance levels have worked hard in recent years to develop assessment tools aiming at diagnosing their socio-economic and environmental conditions and operating as a basis for regional development plans or policymaking [1,2]. Yet, these assessments often still rely on incomplete data, incongruent and heterogeneous data models, or indicator schemes derived in different scientific and professional domains while drawing on multiple, often unclear and sometimes overlapping conceptualisations of 'sustainability' and 'resilience' [3-5]. Consequently, the development of these assessment tools cannot keep up with the rapid societal dynamics, which leads to blank spots on the maps. This is most challenging for smaller and medium-sized rural communities, where the impact of socio-spatial changes may be most severe, and the requisite resource needs that must remain at the forefront of best planning practices are deficient [6–8]. Decision makers and planners are left with the following question: how to choose the right sustainability/resilience assessment tools? More precisely, how to select the right (durable, flexible, and user-friendly) assessment tool to inform decisions (policies) and increase community preparedness? Besides that, one may ask if it is possible to identify commonalities among



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the disparate sets of assessment and planning instruments relating to the resilience and sustainability of communities in all their varieties. This situation is further complicated by the variable geometry of the communities and the wide register of discourses, since assessment models are often developed by scientists, while planning instruments are adapted by practitioners and policymakers.

The present exploratory paper argues that the actantial model initially developed by the semiotician Algirdas Julien Greimas may solve the science policy and epistemic quandary. The actantial model has been elaborated upon in the extension of literary studies and the sociolinguistic episteme is organised around six main 'actants' (Subject, Object, Helper, Opponent, Sender, and Receiver) conceived as structural elements around which any narrative is built [9]. If the actantial model has found several concrete applications outside its heuristic and original field, surprisingly few works have addressed prospective narratives like planning instruments so far. Through its meta-theoretical nature, the current paper evaluates how and to what extent the actantial model may prove helpful in integrating sustainable/resilient assessment processes into policy practice and empirical assessments about community resilience. The working assumption is that, although the actantial model aimed in its origin at understanding and categorising generic structures in language and stories, it may also help to connect and integrate different data and indicator stories to planning processes when adequately translated into the specific knowledge context. To do so, this paper proposes switching the focus from the sustainability or resilience semantics to a more semionarrative approach using a limited series of actantial markers mentioned above. In fact, this implies moving beyond the resilience framework and simply embracing the idea of 'desirable capital' or 'vital capital', i.e., what appears as a vital asset or a capital for communities (or ecosystem beneficiaries) as political Subjects. More than a simple semantic slip, the notion of 'vital capital', when filled with the tangible concerns of local communities, offers a more pragmatic grasp of what planning narratives intend to achieve.

The remainder of this paper is comprised of four sections. The next section digs deeper into terminological discussions surrounding the 'resilience' concept over the last 15 years by revisiting three key debates in sustainability and resilience theory: (i) the sustainability/resilience definitional overlap, (ii) the concurrent descriptive/normative approach of resilience, and (iii) the diverging conceptualisations about resilient systems (absorbing/retrieving/persisting vs. adapting vs. transforming). By reframing these three definitional debates through Greimas's actantial model and semionarrative grammar, we demonstrate that these conflicting views about resilience share, in fact, a common (hidden) storyline or narrative programme about the 'trajectories' of systems. The third section answers this question by clarifying the rational mechanics behind the sustainable/resilient imperative discourse and examining the six main components behind these narratives using the Greimassian model. In the fourth section, we discuss how the actantial model helps generate comparable narratives, offering a flexible roadmap for scientists, practitioners, and policymakers. Using the actantial model to frame communities' futures provides a flexible roadmap in line with similar contemporary efforts to reconcile scientific and political views in resilience theory [10]. This paper invites planners and scholars to direct their attention less on the concept of resilience and more on the (i) 'desired system state or destination' (as an Object) envisaged by a community (as a Subject), (ii) a more precise selection of threats (Opponents) impeding a community to reach that desired state, and (iii) the supportive capital needed (Helper) to reach this terminative state.

The conclusion discusses how the actantial model may also help solve another conceptual issue: the specific nature of planning narratives, especially for smaller and disadvantaged polities like many rural communities, when searching for effective, resilient tools to combat global threats.

Ultimately, this essay makes an original and significant contribution to challenges that represent how planning theories deal with the ambiguous and complex concept of resilience. First, this paper provides a holistic framework for rethinking how planning Sustainability **2024**, 16, 5219 3 of 21

processes can be envisioned through a simple narrative format using the six key components in Greimas's actantial model. Then, this article provides a solution to the debate over the normative/descriptive divide of the concept of resilience and its multiple interpretations by moving from a definitional approach to a narrative program with clear, critical, and logical discontinuities. Finally, this article responds to the common and continuous appeal for simpler language across several disciplines regarding community and ecosystem resilience.

2. Reframing Resilience: From Scientific Jargon to Policy Narrative

International organisations dealing with sustainable development and well-being have put considerable effort into engaging polities of all scales to develop their 'resilience'. This heightened global interest has translated into directives, strategies, and technical tools crafted to prepare large agglomerations, cities, and smaller communities in their assessment and capability building of their (eco)systems against current and future threats. It is hard to keep count of all resilience-labelled initiatives, such as those implemented by the United Nations, OECD, the World Bank, the EU, and several worldwide organisations. Notable initiatives include the Resilient Cities Network (R-Cities), which was developed through the project 100 Resilient Cities (100RC) initiated by the Rockefeller Foundation in 2013 [11]. Other initiatives grew out of necessity from the aftermath of global threat as the European Union Recovery Instrument (Next Generation EU) was deployed by the EU [12] (p. 14).

As communities from all scales and types work to assess their vulnerability and define their resilience strategies, three primary concomitant debates about the conceptualisation of resilience have been taking place over the last 15 years in sustainability and resilience theory. These debates illustrate how this integration from theory to practice remains difficult. Like trees obscuring the view of the whole forest, we suggest that these definitional disputes, while scientifically relevant and practically oriented, fail to show the essential common and perhaps universal narrative behind the conceptualisation of resilience. These three terminological disputes relate to (1) the definitional overlap between sustainability and resilience, (2) the normative/descriptive character of resilience, and (3) the debate about the absorbing/retrieving/persisting vs. adapting vs. transforming properties of the concept of resilience.

2.1. The Resilience and Sustainability Conceptualisation Overlap

The first dispute about the conceptualisation of resilience comes from its blurred intersectionality with the concept of sustainability. Whereas both notions of sustainability and 'resilience' have gained in popularity and found their place on political agendas, the overlap between both concepts remains baffling and has generated more than its fair share of discussion among researchers in recent years [4,13–16].

Investigating this persistent conceptual mix-up, Marchese et al. identified three different lenses under which the relationship between the two concepts is approached: (1) a view where resilience appears as a component of sustainability (enhancing the resilience of a system contributes to its sustainability, while in contrast, the opposite is not necessarily true); (2) a differing conception where sustainability is seen as a component of resilience (a system being more sustainable contributes to its resilience); and (3) a third approach where resilience and sustainability are seen as distinctive and complementary [15] (pp. 1276–1277).

To understand the reasons behind this terminological muddle, some authors have pinpointed that both concepts have been adopted across different disciplines [14,17] while also sharing a relationship with the idea of systems [16–18], which are by nature complex as various factors (environmental, social, economic, engineering, and political) interact with one another. As the concept of resilience gained in popularity in recent years [4,5,16,19], voices were heard advocating for better integration of the two concepts, but also to cope with the existing tension between the need for clear, valuable definitions for practice and the requirement of a certain flexibility to facilitate interdisciplinary discussion [14,20]. Among the endeavours working on finding a satisfying distinction between the two concepts, one

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of the directions consists of linking one of the terms (sustainability) to a state of the system that is socially 'desirable', while the other term (resilience) may refer to a more observable state about a trajectory [5,14,21–24].

In this regard, Xu et al. [16], who examined the literature on sustainability and resilience, corroborate the idea that sustainability is strongly related to a desirable state where "[...] stocks of natural capital are maintained at or above existing threshold levels" [16] (p. 127). These desirable stocks of capital, would they be of natural, physical, human, or even cultural nature (sustainability pillars), vary across systems since different systems rely on different desirable capital—sustainability of what—while keeping in mind that this desirable capital must be accessed by "both present and future generations"—sustainability to what—[16] (p. 128).

2.2. The Descriptive/Normative Riddle of Resilience

The distinction between resilience's descriptive vs. normative stances hinges on a key question: should resilience solely describe observable phenomena acting on systems successfully coping with disturbance (resilience as a descriptive concept), or should it be viewed as an ideal state for an ecosystem to aspire to when confronting disturbances (resilience as a normative concept). In a seminal article that still captures the debate on substance and form, Brand and Jax investigated several resilience conceptions, identifying three categories and ten classes of definitions [14]. The first category encompasses six classes defining resilience as a descriptive concept emphasising a system's capacity to absorb the disturbance(s), external stresses, and shocks and maintain its properties. A second category includes two definitions where resilience appears as a hybrid concept integrating normative expectations aiming at maintaining a system and its properties. The third category, framing resilience as a normative concept, fosters two classes of definitions embracing resilience as a long-term and desired system state (socially or ethically motivated) for the benefit of a community. Over the years, the resilience descriptive/normative debate has remained a central one [14,21-27] and in doing so, it has remained part of a more extensive discussion about what van der Hel entitles an "appropriate relationship between science and politics" [28] (p. 248).

Far from trivialising the importance of this debate, one may ask, what is the practical reason to engage in this terminological discussion? Or, more precisely, why defend a descriptive conceptualisation of resilience? From an argumentative point of view, two answers can be provided to this question: (a) for a purely heuristic reason or (b) because ultimately, such descriptive conceptualisations can be helpful in guiding the actions of people and polities, notably in helping them to evaluate natural and human-made systems—in other words, to guide normative intentions. The second answer, supported by a social pragmatic rationale, is undoubtedly in line with the argument put forward by resilience theorists aiming for a more explicit descriptive approach to resilience.

To simplify the understanding of this pragmatic rationale, let us look at the definition of resilience proposed by Thorén [27] (p. 311) (cf. also [24] (p. 4)), which echoes a general descriptive stance about the concept. The author has schematised this in an intuitive manner, attributing some equations to the sentence as he defines resilience as "the ability of a system S to absorb some disturbance D whilst maintaining property I". He then clarifies that "a system S is resilient if, and only if, when subjected to some disturbance D, I is maintained through the disturbance" [27] (p. 311). By pushing the schematisation of Thoren's definition further, one could suggest the following formulation where \land refers to being adjoined (for instance, to a property I) and \lor for being disjoined (for instance, from a property I). Therefore:

- System = resilient if $[S \land I]^{t1} \land D \rightarrow [S \land I]^{t2}$
- System = non resilient if $[S \land I]^{t1} \land D \rightarrow [S \lor I]^{t2}$

In the first formulation, the situation in period t1 remains unchanged in period t2 . In the second case, system S, initially adjoined (\land) to a property 'I' in an initial period t1 , becomes disjoined (\lor) from this property in the terminative period t2 . Two insightful takeaways

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arise from this formulation. Firstly, the shift from definition to symbolic representation underscores the narrative dimension of resilience, highlighting the 'storytelling' aspect behind the definitions, as seen in Thorén's observation. In the present case, the resilience definition can be deconstructed/reconstructed into the storyline:

- There was a time (t1) when there was a System 'S', which has some property 'I';
- Then, a disturbance 'D' affecting System 'S' occurred.
- Nevertheless, the disturbance 'D' was later (^{t2}) absorbed by System 'S', which property
 'I' remained.

A second takeaway for this formulation is that whether one positions itself on the side of resilience descriptivists or normativists, the formulation (storyline) remains the same. In other words, while advocating opposing views, descriptive and normative stances about resilience use the same storyline or narrative programme. The main difference remains in their pragmatic nature, namely, the 'sense' and expected effect invested in the last part of the storyline. In the descriptivist stance, the segment $[S \land I]^{t2}$ (or the segment $[S \lor I]^{t2}$) remains a simple and objective statement that can be observed. In contrast, from a normative point of view, the segment indicates a valuable, desired, or ideal situation to be reached.

Once established, the final and formal segment of the resilience storyline, as described above, can be filled with concrete meaning by specifying, for instance, what 'I' stands for or what exactly the property of 'I' is in the expression $[S \land I]^{t2}$ —should 'I' stand for 'maintaining a specific temperature', 'keeping a specific physical/geographical position in the space', 'generating new fruits every year', or 'keeping an annual retention rate of students in the community school that is $\geq 90\%$ '. The list of systems keeping, maintaining, or retrieving specific initial properties after certain disturbances can go on and on. Then, what if the particular property of a system S is 'to show great capacity to adapt and find new solutions to disturbance'? Would one consider such an adaptative situation a case of resilience? This leads us to the third debate about resilience/sustainability terminology.

2.3. Absorption, Adaptation, and Transformation: The Multiple Narratives of the Resilience Concept

In the wake of the descriptive/normative debate about the nature of resilience, another critical question that remains is the following: should resilience be limited to absorbing/maintaining/persisting properties that allow a system to return to or maintain an initial state or should it also comprise both the adaptative and transformative properties in its definition, especially with regards to community/ecosystem management [18,21–23,29,30]. Once again, Thorén, this time with Olsson, provides an insightful example to illustrate the interpretative dilemma about what should be included in our understanding of resilient systems. The authors state:

"Should we understand the migration of a community following a series of severe storms as an adaptation to climate change and hence a reason to think that the community is resilient, or should we think of the dispersion of people as the collapse of the community, thereby understanding the situation as one where that community is not resilient (or not resilient enough) with respect to that particular kind of impact". [24] (p. 1)

In this astute example, two types of property 'I' of a system 'S' (a community) facing a disturbance 'D' (a series of severe storms) are opposed:

• The "property I₁ of maintaining a geographical position in the ecumene";

$$[S \wedge I_1]^{t1} \wedge D \to [S \wedge I_1]^{t2}$$

vs.

• The "property I₂ of being able to maintain community existence" (would it be through a series of adaptation strategies (among them, migration)).

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$$[S \wedge I_2]^{t1} \wedge D \to [S \wedge I_2]^{t2}$$

While the nature of the debate remains about the definition of resilience as limited to 'absorbing/remaining/persisting' vs. 'adapting' vs. 'transforming' and while these definitional approaches appear different, once again, the formal narrative behind resilience remains the same, i.e.:

$$[S \wedge I_k]^{t1} \wedge D \rightarrow [S \wedge I_k]^{t2}$$
.

All in all, in the three mentioned definitional debates on the character of resilience, the ultimate and unavoidable question from a social perspective is how one wants a specific system 'S' to be in a given time t^2 ? or, put differently, how should one envisage $[S \wedge I_k]^{t^2}$? Furthermore, what should be done to ensure the desired trajectory from S^{t1} to S^{t2} ? Should this trajectory be preservative, adaptative, or transformative?

In short, one may ask if it is possible for a polity (or at least for its representational delegates from any level of government or political authority) not to have any planning storyline (prospective narrative), i.e., not having any normative expectations or any ideal state to reach next (would it be a maintained state) when envisaging some specific disturbances affecting their ecumene?

Cañizares et al. echo this idea when they warn about the "misguided idea" and "profound danger of depoliticization" of resilience [21]. Being among the most vocal scholars advocating a normative conceptualisation of resilience, they also strongly argue in favour of a conceptualisation of resilience that integrates the ideal of transformation as they define resilience as "an opportunistic transformation of some complex system and of the organizations that manage it". [21] (p. 15). Engaging in an exegetic interpretation of the work of C.S. Holling, the pioneer of the concept of resilience, and arguing against what they term the 'orthodox [descriptivist] narrative' of the influent Resilience Alliance, Cañizares et al. show that this transformative integration of resilience, in line with the work of Holling, has the advantage of looking at "opportunistically improving ecosystems and the social organizations that design or control them" [21] (p. 15).

Following this line of argumentation, there is a legitimate plea to move our attention from a definitional conception of resilience to a narrative approach looking at systems' trajectories from an initial state to a terminative state (would this system be observed or desired). The following section explores a comprehensive but straightforward narrative decoding device that allows communities of all scales to craft their own resilient assessment tools, i.e., Greimas's semionarrative actantial model.

3. The Actantial Model as a Tool for Decoding and Structuring Community Planning Narratives

Before presenting Greimas's actantial model, it is worth mentioning that the relationship between storytelling and planning has been explored over the last few decades [31–34] and Forester [35], Beauregard [36,37], and Tewdwr-Jones [38–40] are certainly among the seminal planning theoreticians to have recognised how storytelling may be instrumental in shaping planning practices. Yet, as observed more recently by Ameel, supporting the enhancement of narrative literacy in planning practice [41] "little systematic analysis has been carried out to examine the different kinds of narrative used in urban planning" [42]. Concomitantly, the fundamental integration of environmental narratives, eco-narratives, and ecocriticism into spatial planning practices through institutional discourses has been the object of attention of recent scholarly works inviting scientists and practitioners to better critically assess how environment material, representation, and discourse intertwine to produce and shape (notably through metaphors and rhetoric) our understanding of the environment and its 'crises' [43–46]. Taking advantage of new computational approaches, Purves et al. [47] provide some relevant directions to examine the multitude of voices and the diverse horizon of discourses on the environment. When it comes to more systematic structural semiotic approaches in the wake of Gremas's work, efforts remain more

modest. While the potential interest that urban ecosystems represent for semioticians was discussed long ago by Gottdiener and Lagopoulos in their seminal work The City and the Sign [48], there are some more recent and noteworthy theoretical works engaged in the exploration of how Greimas's semiotics offer a lever to study the built environment and its representations in social media [49], identifying the actants (Helpers and Opponents) that can help to understand and support soundscapes [50], or to use the actantial model to revisit econarratology and challenge the anthropocentrism behind environment planning discourse [51].

Thus, far from the study of the ecosystem, land use management, and planning theories, it is at the intersection of linguistics, where semiology and narratology meet, that the work of the literary scientist Algirdas Julien Greimas is rooted. His work follows a prevalent interest in the early 20th century to identify the recurring forms of mythical and literary narratives (Propp, Polti, and Saurio), but also positions Greimas at the heart of the most scientific branch of structuralism [52] (p. xxiii). The methodological and epistemological legacy of Greimas is undoubtedly among the most lasting contributions of structuralism that allowed him and other members of the School of Paris to adapt and develop a series of practical and simple tools to decipher the complexity of narratives [53,54] (p. 53), [54] (p. 259).

3.1. Some Use of Greimassian Semionarrative Theory Outside Literacy Studies

While aiming to assist in decoding fictional work, Greimas's semionarrative approaches have found several concrete applications outside its heuristic and original field over the years. This includes business development and organisation management [55–60]; marketing [61,62]; professional development [63–65]; education and learning [66,67]; educational awareness practice for health [68,69]; media and communication reporting [70,71]; political rhetoric [72]; identity construction [73,74]; socio-political changes in professional organisation [75], computer science, and story creation [76,77]; sports development [78–80]; and even musicology [81].

One of the most noteworthy applications of the Greimassian semionarrative was used in geography by Gaëtan Desmarais, who demonstrated how the human establishment is articulated around the dynamics revealed by the canonical narrative schema and the actantial model [82,83]. The theoretical breakthrough of Desmarais remains a milestone in the development of structural geography and its relationship to semionarrative structures [84]. While the actantial model provides innovative and effective tools for descriptive geography, attempts at using the theoretical framework in spatial planning or policymaking (as prospective narratives) have been modest despite providing simplified universal apparatuses to clarify the terms of a planning quest [85]. Among the many elements of the legacy of the Franco-Lithuanian theorist, two hermeneutic instruments, the actantial model and the narrative program (mentioned in Section 2.2), were inferred from the theoretical examinations of the semionarrative structures undertaken by Greimas in the 1960s and 1970s. The following subsection introduces the actantial model.

3.2. Greimas's Actantial Model and Its Components

In its simplest version, the actantial model is a theoretical device reproducing the narrative's structural relationships between six basic components (actants). From an epistemological perspective, the actants by themselves are not directly observable. Still, they may only be deduced from the content of the narratives as they intrinsically organise and position them in relationship with one another. It is also through these co-existential relationships that the six actants may reveal their functions. The six fundamental actants are as follows:

1. The Subject. In a narrative, the Subject is conceptualised as the actant filled by a character, i.e., an individual (a human persona, any other individual of the animal or vegetal species, a deity, or an inanimate object) or a set of individuals constructed as a unit (an existing local community, a nation, a county government, a fictive realm,

- a football team, or an art collection, etc.). In this respect, an 'ecological system' may impersonate and fulfil the actantial role of the Subject. The Subject is recognised through its relationship to a specific 'Object' to which it aims.
- 2. The Object. In a narrative, the Object subsumes the primary goal that the Subject aims toward. By joining the Object, the Subject (or the character fulfilling the Subject's actantial role) achieves its mission, completes its assignment, or fulfils its desire(s). In a classic fairy tale, the Object might be a lost magical item with certain powers; in a real-life context, the Object might be a family to be reunited or a diploma to obtain. Thus, the Object of the Subject 'rural community C' could be "positive demographic growth". In contrast, for "community D, which is threatened by a series of severe storms", the main Object could be a 'new geographical position', but it could also be the original area being safeguarded from such cataclysms.
- 3. Sender. In the actantial model, the Sender is the actant filled by characters sending the Subject on its quest for the Object. The Sender reveals what goal should be reached by the Subject, thus triggering a journey for the Subject. While in fairy tales the Sender's role could be filled by a parent in distress after the disappearance of the child or by a sovereign looking to recuperate a stolen magic item required for the prosperity of the kingdom, modern political decoding of the Sender's function can be illustrated through the figure of a state agency assigning other state actors to fulfil a task in the political agenda. For instance, the Ministry of Economic Development (Sender) may assign a regional working group (Subject) to ensure the establishment of a new factory (Object) in order to guarantee the prosperity of a local community (i.e., Receiver).
- 4. Receiver. The Sender relies on the Subject to recover or access an Object so that the Receiver can benefit from the recovery of the quest. The Receiver emerges in the narrative sequence as the ultimate beneficiary of the quest. In an imaginary world, the return of an ancient talisman allows the kingdom to secure a prosperous period of peace in the same manner that a sporting event, such as the World Cup, allows a nation to recover its pride in the fiercely competitive international arena. The return of an affected ecosystem to its initial state may permit a community to enjoy the magnificence of the landscape or the availability of fresh local fish once again.
- 5. Helper. As the Subject is sent on its quest to retrieve or access the desired Object, several antagonistic and supportive elements will enter the narrative to impede the achievement of the quest (or make it more challenging) or, conversely, provide help to ensure its success. In the actantial mode, the Helper refers to the actant supporting the Subject so the latter can achieve its mission. Like the sidekick of a superhero or the enchanted sword retrieved from a hidden cave, the Helper provides the Subject with the necessary devices to capture the Object and reach its target. In daily politics, a subsidy from the European Union may facilitate the revitalisation of an agricultural community.
- 6. Opponent. The Opponent is the counterpart of the Helper, i.e., the actant filled with character and elements that obstruct the Subject in its quest to reach the Object. Taking the form of calamities, bad luck, or competing belligerents, the Opponents are cast as a significant threat to achieving the Subject's journey and risk derailing the expected (or positively unexpected) happy ending by the Receiver. From saboteurs drilling a hole in a hero's ship to administrative red tape continuously increasing delays of applicant communities to a COVID recovery fund, the Opponents are conceived through their actantial function of damaging the Subject's ability to accomplish its mission. In a narrative about ecosystem resilience, one may easily see how political and administrative barriers and unfavourable natural conditions may quickly be labelled as villains. We will return to this later; nevertheless, the fact is that scientific and political narratives can hardly avoid the framing of such records since it is fundamentally part of the way we construct or understand human or system adaptations, transformations, or recovery processes.

In the actantial model, these six functions are organised in three axes that are usually represented through a simple diagram (Figure 1).

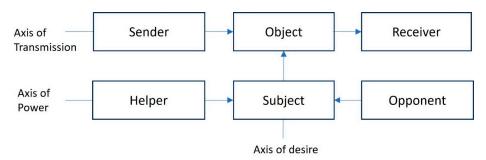


Figure 1. The actantial model and the six main actants, adapted from Greimas (1966, p. 180, © Larousse).

- The first axis, the 'axis of desire', connects the Subject and the Object in a quest as the main character has a main project to be reunited with its goal—the Object;
- The second axis, the 'axis of transmission', is structured around the Sender, who has
 knowledge of the mission to be accomplished (by communicating the goal to the
 Subject) and the Receiver, who will benefit from the recovery of the Object;
- The third axis, the 'axis of power', reveals the presence of the Helper and the Opponent, which are conversely engaged in supporting or hindering the Subject in accomplishing its mission.

Greimas draws another device from the semionarrative analysis that takes the form of a general template called the Canonical Narrative Schema (CNS), which displays the relationship between all of the actants. The latter can be conceived as a dynamic sequence engaging three phases and two subphases: (I) A phase of manipulation where the Sender mobilises (voluntarily or not, explicitly or not) the Subject to its quest by making the latter "wanting to do" and "having to do", i.e., by provoking the Subject to achieve its junction with the Object by desire or obligation; (II) A phase of action where the Subject concretely undertakes the necessary tasks to achieve the mission. This is completed through two subphases, namely a stage of competence acquisition from Helpers where the Subject acquires the missing qualification(s) and assets required to achieve the quest, and a stage of performance where the latter uses or puts into practice the acquired qualifications to disqualify the Opponent(s) and complete the quest; and (III) A phase of sanction where the action is evaluated as successful, partially successful, or unsuccessful as the Receiver(s) benefit or not from the action and leading the Subject to be rewarded or rebuked following the result of the quest.

Although it is impossible to expose all the finesse of the Greimassian semiotic approach through these few paragraphs, it is possible to grasp the fundamental character of the narrative schema shared by fictional and non-fictional works, such as the planning statements or scientific stories. A few more essential remarks should be added before illustrating this analogical semionarrative structure.

Firstly, a character of a narrative may fill several actantial roles. This means that the Sender, the Subject, and the Receiver, for instance, may be adopted by the same protagonist. For example, in the case related to the current matter, the hidden narrative behind a small community committing itself to generating local jobs in the context of economic crises reveals this community not only as a Sender, but also as the Subject and the Receiver of the quest.

Secondly, several characters may fulfil the role of the same actant. One can imagine that a quest's beneficiaries (Receivers) may be multiple. Several protagonists filling the functions of Opponents and Helpers may be involved in the plot. For instance, national programs (Helper 1) and pro bono work from regional veterinarians (Helper 2) may facilitate the local wildlife's recovery—by a rural community—after a natural disaster.

Thirdly, the same character fulfilling an actantial role may take a different form or have various layers subsumed by one another. For instance, the actant of the political narrative—a state institution, let us say the Ministry of Environment—may be engaged by one person, the Minister of Environment, also known as Mrs Smith.

Fourthly, it is worth mentioning that besides the six main actants, the actantial model recognises the existence of other actantial functions such as (i) Antactants (Anti-Subject, Anti-Sender, or Anti-Receiver), which are actants fostering characters competing with their counterparts in the storyline or (ii) Negactants, which are actants that could have played a role in the storyline but remain absent [86,87]. To illustrate it more clearly, from the perspective of a local community (Subject) trying to maintain the operation of its post office in a context of regional service fusion, a neighbouring community competing for the same Object would be cast as an Anti-Subject. As for the Negactant, the post-Brexit retreat of the EU (as a previous Helper, Opponent, or even Sender) from the UK political landscape offers a good illustration of a suddenly absent actor and the shifting of a planning narrative.

Finally, when talking about shifting narratives, one should remember that any storyline can be seen from different points of view, i.e., from different character observers, implying that the Subject and Anti-Subject can be interchangeable, and so can be the Helpers and Opponents, etc. The Observing Subject can also apprehend the storyline, like the narrator of another witness observer. In the non-fictional narrative, planning tools tend to articulate the storyline from the perspective of the Observing Subject (planners/decision makers), sometimes merging with the Acting Subject, Receiver, and Sender.

3.3. Toward a Simple Communication Tool to Decode and Share Ecosystem Narratives

In the interest of brevity and to remain within the exploratory scope of this article, it is difficult to supply an in-depth analysis of specific cases, a project that would deserve a separate paper. However, it is pertinent to offer a quick illustrative example of the proposed approach within the context of rural tourism in the aftermath of the COVID-19 pandemic and the pessimistic concern about its economic downturn, an issue that will resonate with readers and underscore the potential applicability of the Greimassian model. Such an illustration can be borrowed from a circumstantial example, for instance, the case of the tourist revitalisation of a rural community. One may imagine a small European rural agricultural locality 'R' of a country 'C' dealing with a lack of financial resources and looking to improve the attractiveness of its tourism and, therefore, the economic benefit of the community through the implementation of a museum and interpretive centre. To emphasise the relevance of this example, one may refer to a recent report from the World Tourism Organisation (UNWTO) indicating the potential benefits of tourism to rural sustainable growth:

"Visitor analysis by the UN World Tourism Organisation (UNWTO) showed that 'destination Europe' has led the rebound of international tourism following the lifting of COVID-19 travel controls. UNWTO stresses tourism's potential to contribute to resilient and sustainable economic growth, including sustainable consumption and production. Rural tourism is seen by UNWTO to "make a real difference for rural communities, delivering jobs, supporting businesses and celebrating and protecting traditions". [88]

Against the backdrop of this illustration, it is also noteworthy that the EU Directorate-General for Agriculture and Rural Development (DG AGRI) has recently carried out a revitalisation program to support small communities in strengthening their tourist attractiveness, thanks to the European Agricultural Fund for Rural Development (EAFRD) [89,90].

To continue with our illustration, one would understand that access to the funding by any community would necessitate being in line with the national CAP Strategy Plan and complementary financial support of the national government of the country 'C' and, more specifically, from the national ministries and agencies in charge of rural development, agriculture, and tourism. This may also require the rural community 'R' to face difficult situations, such as the short delay in applying for funding and the lack of human resources.

However, in such a storyline, this might be achieved with the willingness of municipality officers to do overtime and the contribution of local volunteers to give time for developing a project proposal. Finally, one may consider that to be successful, the locality 'R' must deliver a better proposal than the one proposed by the rival neighbouring community 'Q'. In a happy ending, the locality 'R' would be able to implement the museum interpretation centre after mobilising the necessary support and securing the EAFRD to the delight of its inhabitants, but also the relief of the country 'C' government, which can limit national expenses thanks to the financial support from the EU as an external source. While planning narratives are rarely presented in a way that makes them look childish, they nevertheless lend their configuration to the same fundamental structure. Table 1 breaks down the present illustration of a resilient/sustainability plot into six main actantial components.

Table 1. Illustration of an analysis of the actantial components of a tourist revitalisation initiative.

Actantial Roles	Actants
Sender(s)	 D1: The EU Directorate-General for Agriculture and Rural Development (DG AGRI) establishing what can be done to improve agriculture and rural development; D2: The government of country C (through its Ministries and agencies in charge of rural development, agriculture, and tourism) encouraging small rural localities to access new funding for implementing rural initiatives to improve tourism development; D3: The UN World Tourism Organisation (UNWTO) stressing "tourism's potential to contribute to resilient and sustainable economic growth".
Subject(s)	• S1: A small rural agricultural community/locality R of country C (and its inhabitants) lacking cultural facilities (e.g., museum and interpretation centre) looking to improve tourism attractiveness and financial benefits.
Object	O1: Tourist attractiveness (able to generate new financial income for the local economy and its inhabitants) that can be captured in the form of new local equipment (e.g., museum and interpretation centre).
Receiver(s)	 R1: The small rural agricultural community/locality R of the country C (and its inhabitants); R2: The government of country C, which can limit national expenses in the small rural agricultural community/locality R thanks to investments from an external source (EU).
Helper(s)	 H1: The European Agricultural Fund for Rural Development (EAFRD), which, under the framework of the EU Common Agricultural Policy (CAP), is an instrument to (i) "maintain rural areas and landscapes across the EU" and (ii) "keep the rural economy alive by promoting jobs in farming, agri-food industries and associated sectors" (European Commission—DG AGRI, n.d.) and provides financial support to the small rural agricultural community/locality R in reaching the Object; H2: The government of country C supporting part of the project's cost and providing support for the candidacy of the small rural agricultural community/locality R and the "financial envelope for tourism development from the ministry of tourism."; H3: Willingness of municipality officers to do overtime and local volunteers to give time for developing new local equipment (e.g., museum and interpretation centre) that will act as a tourist attraction.
Opponent(s)	 OP1: The lack of financial resources to implement the new local equipment (e.g., museum and interpretation centre) that will act as a tourist attraction; OP2: The lack of administrative and human resources to prepare a plan and a project proposal to support the implementation of the tourist attraction initiative; OP3: The short delay in preparing a plan and a project proposal to support the implementation of the tourist attraction initiative; OP4: Another small rural agricultural community/locality Q, which is competing as an Anti-Subject (~S1) for the same Object as the small rural agricultural community/locality R.

The previous example serves as a catalyst for further discussion and subsequent analyses, yet its primary aim is to establish a foundational understanding of the common

grammar provided by the actantial model for various stakeholders within the realm of sustainability studies and planning. The model can be operationalised through the simple representation (as showcased above in the actantial graph table) of actants involved in the community quests while being discussed with other stakeholders of the planning process. This may be quickly prepared as a one-page document. In this respect, Greimas's model offers an ideal tool for bringing three parties together who have long been opposed in the debate over the sustainability/resilience of ecosystems, helping to deal with their different concerns or 'quests' together, namely (I) the scientific/technical stakeholders engaged in diagnosing/debating the state of resilience and sustainability of ecosystems; (II) the political stakeholders concerned with establishing the normative standards and rules about sustainable/resilience ecosystems; and (III) the social actors and all the civil society invited to integrate the new practices to ensure the sustainability and resilience of the ecosystem. While the language and discourse of all these parties may appear idiosyncratic, the actantial model provides a common frame to understand the analogous hidden narrative of all these parties.

4. Discussion: USING the Actantial Model to Support Community Planning

Based on the previous argument, one can supply clarification on how the actantial model may contribute to the integration of the resilience/sustainability theoretical divide in the practical day-to-day conversation(s) between those who decide and enforce, those who diagnose and try to understand, and those who act and attempt to adapt their behaviours to ensure the sustainable maintenance, improvement, or recovery of their system.

4.1. The Struggles to Foster a Compelling, Coherent, and Inclusive Science-Politics Narrative

Can the holders of scientific and technical knowledge, political decision makers, and other social actors from the public sphere work together and bring solutions to answer the series of concerns related to sustainable/resilient systems or, more accurately, to help these systems reach an agreed 'desired state'? From the outset, it should be stated that this question fundamentally remains problematic because none of these groups constitute a uniform, homogeneous category. Scientists are not a single group, nor are political decision makers and actors from the public sphere. Moreover, many stakeholders concerned by ecologic systems and ecumenes see their scientific, practical, and political roles overlapping. Perhaps the position assigned to those called 'planners' in public institutions captures this complex imbrication between the three types of narratives, namely the narratives of those working at providing 'evidence' (or confirming the absence of evidence); the narratives about what should be done for the benefit of the polity; and the multidimensional narratives from the civil public voices interpreting and questioning both scientific and political discourses. The 'planning narratives' bridge these three other discourses from the perspective of resilient and sustainable systems. Their narratives are an effort to indicate a practical and relevant route to securing a political target (quest), while considering the inputs of those supporting the 'techno-scientific' narratives and those who react and put the outcomes of these narratives into practice.

While not a new issue, the incongruences between social actors' discourses and how narratives can shape planning practices about how ecological systems and communities are framed have been an essential topic of discussion over recent years [91–95]. In the field of sustainability and resilience theory, the willingness to improve communication between the scientific and the political divide in consideration of the public sphere has taken the form of calls for 'dialogue' or 'conversation' [95–98], 'co-production of knowledge' [99–101], or 'interdisciplinary collaboration' [102,103]. The complex relationship of mutual influence (or sometimes mutual lack of knowledge) between science and politics that contributes to shaping each other comes in different forms [104]. While some theorists have worked on developing a framework to facilitate the integration of scientific evidence in policymaking [105], others have decried political practices instrumentalising science to the benefit of those in power [106,107].

The challenges triggered by the inappropriateness and the asymmetrical character of communication between social actors have been addressed through different lenses. A [first and recurrent concern of these challenges is the need for an interdisciplinary frame for a common understanding between scientists from other disciplines as well as scientists, practitioners, and politicians. It is with this broader framework of knowledge that Pohl and Hirsh Hadon defined the challenging area of transdisciplinary research (TR) as "[coping] with such problem fields in a process that integrates a variety of disciplines and actors from public agencies, civil society and the private sector, in order to identify and analyse problems with the aim of developing knowledge and practices that promote what is perceived to be the common good" [97]. Of course, establishing a communication interface between all stakeholders remains a primary source of challenge. While dealing with the lack of coherent framing within the TR of sustainability science, some scholars have invited scientists to avoid forging a specific scientific glossary to tackle the problem, and instead they should "try to use as simple language as possible, shared by many disciplines and with results ultimately also understandable by civil society" [14] (p. 7).

While the form of communication appears to be key to successful collaboration between scientific and political actors, the reasons for its difficulties or even failure are manifold. Some observers have noted the difficulty of avoiding the stalemate of this coproduction of knowledge due to the predominance of the linear model science policy [104] or the "lack of a convincing and attractive alternative imaginary of science—policy practices" [99] (p. 9). Others have recalled the danger of governments making bad choices "taken under the cover of science" [108] (p. 272), refusing to engage politically on the pretext that further research is needed [104] (p. 7 referring to Fuller [109]) or, simply, they are not being kept accountable for the "programming, funding, creat[ion], and [the use of] knowledge and evidence [in the] decision-making" [99] (p. 9). Some researchers have instead focused on "how co-production of knowledge and action can effectively be fostered across different contexts and on a global scale" [100] (p. 128).

A second area of concern relates to the need for the inclusivity of voices being heard with an invitation to listen to the neglected, marginalised, disempowered, and sometimes forgotten societal actors, with decision making too frequently inclined to favour the most represented actors [110,111]. This may involve embracing other types of knowledge to foster solutions to the challenges of more resilient societies or 'gain a more plural understanding of [sustainability] transformations' outside the dominant Western scientific tradition, notably through the integration of indigenous local knowledge (ILK) [112]. This may also involve welcoming different 'narratives' or "engage multiple voices and enable self-organising processes to achieve resilience" [113] (p. 1286), as well as a re-politicisation of knowledge (co)production and "contestation of interests, views, and knowledge claims" [101]. Beyond scholarly publications, this has also been supported by influential international organisations. In its report about the dialogue on the Science–Policy Interface, the United Nations Environment Programme [114] (p. 9) argues that this can be achieved through two engagements: "First, priority setting on environmental issues needs to be based on co-creation (collaboration). Secondly, local priorities need to be heard during decision-making".

This leads to a third angle through which the communication gap between social actors has been considered in the recent literature, which conveys processes through which this social and cooperative dialogue can take place. In the area dealing with the sustainability or the resilience of ecosystems, this is usually completed through identifying strategies and practices that can be implemented to maximise the inclusive participation of all stakeholders while ensuring the successful delivery of solutions tackling issues faced by ecosystems and communities. While there is evidence that stakeholder participation, notably in environmental management, may improve the quality of the decisions affecting ecosystems [103], strategies have to be developed to make sure that all actors are accountable for the role they play in the decision-making process [99].

4.2. Sustainability and Resilience Planning as a Common Storyline

One of the most insightful efforts to translate and conceptualise how the sustainability/resilience multidimensional inputs can be put into an operational model while looking at the role of different actors has been proposed by Achour et al. [10]. The authors examined how resilience and sustainability can be integrated within a model that would serve decision making (moving from the theoretical to the application level). Combining the imperative of resilience (strongly associated with the response capability to a disaster affecting infrastructure) with the tri-partite dimensions of sustainability (economic, environmental, and social), they developed the potent 'action–reaction' model. This can be completed by engaging all parties having different roles and capacities (who can do what) in the process, namely "a multidisciplinary stakeholder team representing technical, strategic, social and political parties" [10] (p. 358). The authors recognise that the social, technical, and political parties, all actors who can initiate changes, may have different priorities and targets. Each initiative (or action) may impact other parties (reaction). Doing so, in an efficient process, every party may inform a fourth party, the strategic planning delegate, who in turn may craft the relevant strategies allowing the following:

- The political party enforces resilience/sustainability standards and knowledge to be
 adopted by the social and the technical parties, while informing the strategic planning
 about the decisions and political agenda. This can be completed notably by confirming
 the priorities at the local and national levels;
- The technical party to inform the political party through the identification, assessment, and monitoring of risks faced by systems as well as the preparedness capacity to react to these threats or maintain the sustainability of the concerned systems;
- The social party to integrate sustainability and resilient standards and knowledge through training, education, and innovation while providing feedback to the political party about the community's awareness level and integration capacity.

The strategic planning party may then provide all other parties with sustainability principles, so the social party knows what the priorities are and benefits from guidelines to adapt its behaviours and the technical party knows what to monitor and how to assess the risks, while the political party can, in turn, approve, execute, and enforce the principle through policies.

4.3. Beyond the Resilience Paradigm: A Tale of the Tangible Community Quest

The resilience and sustainability integration process proposed by Achour et al. suggests that a dialogue between stakeholders can initiate changes in sustainable and resilient practices [10]. In fact, it shows that any interaction between those actors fills a narrative or enrols in a plan (quest) that could be conceived as a (forthcoming and ideal) narrative for the future of the community. In Greimassian terms, that is to say, a Sender revealing what the perfect target (Object to reach) is, a Subject undertaking the quest proposed by the Sender to reach the target (Object), an Object that is presented as a goal to be achieved by the Subject, and a Receiver that is introduced as the beneficiary of the plan to be achieved. Any political and planning narratives borrow the same simple structure and share the same fundamental components exposed in the actantial model.

At first glance, Greimas's actantial model may paradoxically seem both a complex overthinking template and an infantilised instrument converting severe human concerns about their ecosystems into a fairytale-like story. This paper's main objective is not to convince community practitioners to convert their planning instruments into formal logarithms or transform ecosystem scientists into entertaining storytellers. The aim is instead to provide a line of argumentation that indicates that behind the complexity of resilience and sustainability conceptions—which are naturally magnified by the unclarity of these notions and the discrepancies between the descriptive and normative debate—there is a common narrative structure that may help to open dialogues between various stakeholders concerned by issues in their ecosystems. A common narrative structure may also help compare cases between communities that, at first glance, have different issues related

the preservation, recovery, adaptation, or transformation of their ecosystems. To do so, researchers and community practitioners must take a series of new directions in resilience theories and sustainability systems. The conclusion restates these directions and supplies the key takeaways that may guide scholars and planners in enriching their perspective with the actantial model.

5. Conclusions

This essay undertook the task of contributing to the already vast literature and existing efforts in sustainability and resilience theory to integrate theoretical models into practice. By venturing far from the mentioned areas in the unexpected field of semiolinguistics and by expanding the Greimassian semiotic approach to ecosystem narratives, the present paper brings four key takeaways, all arguing for the enlightening capacity of the Greimassian actantial model to contribute to sustainable planning practice.

Firstly, the Greimassian semionarrative approach aligns with the request for a simple language across disciplines by providing a set of tools (the actantial model, the narrative programs, and the canonical narrative schema) able to overcome the complexity of the dominant but still fuzzy, polysemic and debatable concepts of 'sustainability' and 'resilience'. Whatever scholars or policymakers define resilience as, a capacity to recover, adapt, or transform; whatever they consider these concepts should be used for, to account for observed reality phenomena under controlled conditions or to formulate socioecological targets, they can all be subsumed under the same formal structure of a formulated trajectory: the one of a Subject being joined and disjoined from an Object in a time one (T¹) and the same Subject being joined and disjoined from the same Object in a time two (T^2) . Whatever the conditions for resilience or sustainability by a Subject (a rural town, a river, a llama farm, a hydroelectric dam, a tourist beach, etc.) and whether they are met or not (descriptive narrative) or desirable or not (normative narrative), the question of the sustainable/resilient character (or not) of these Subjects is articulated on a fundamental narrative structure that goes beyond the definitions (sometimes contradictory) of what is sustainable and what is resilient. Yet, while sustainability and resilience have been adopted globally and have acted as the dominant vehicle for guiding the assessment and the planning of communities and ecosystems, their vagueness creates more confusion. We believe that in real life, the tangible concerns of community stakeholders and decision makers remain constantly focused on certain specific capitals they consider vital to face threats and engage in a peaceful future. More concrete than just 'resilient' and 'sustainable', for small communities, these capital resources are worth preserving or translating into outcomes that are as simple and palpable as: 'implementing a new interpretation centre to attract tourists', 'accessing faster ambulance services to the regional hospital', 'retaining and recruiting young people', 'safeguarding of the post office', 'completing the new marina wave-breaker to protect small boats', etc.

In that sense, the actantial approach helps to better formulate what is really at stake for ecosystems and communities, moving beyond the concepts of resilience and sustainability to focus on the capital to protect or to gain, or to paraphrase Xu et al. a "stock of [...] capital"—although not limited to natural resources—to "maintained at or above existing threshold levels" [16]. Collectivities in their different forms should learn to pass from vague questions such as "how are we going to be resilient?" to "what (should be) the capital(s) for this ecosystem or community?" and "how can we gain and maintain this capital above the desire threshold levels?". One may counter that the list of capital to gain and maintain by a community may be infinite; thus, communities tend to frame their narratives in the urgent context of necessities. In other words, acquiring tsunami river barriers may not be considered a capital for Lichtenstein's communities while being framed as essential for those in Thailand.

Secondly, the actantial model allows for bridging the communication gaps between various stakeholders concerned by ecosystems but dealing with different realities and expectations. It delivers a common frame to scientists, practitioners, and decision makers

to assess and compare narratives without sacrificing the unicity of places and community concerns. Would it be about a traditional fishing coastal hamlet in Northern Europe or an emerging new technology hub in South Asia? Through a limited series of components, the actantial model answers to the invitation of Brand et al., prompting actors from a multitude of disciplinary horizons "to use as simple language as possible, shared by many disciplines and with results ultimately also understandable by civil society" [96] (p. 7). The model also provides a common framework for communication and understanding between scientists, practitioners, and politicians following Pohl and Hirsh Hadon's expectation [97]. The actantial model supports the resilience and sustainability integration process proposed by Achour et al. by establishing a grammar for the multiple dialogues between the technical, political, social, and planning narratives [10]. Because this grammar is more formal than editorial, embracing and inclusive of all types of discourses, it certainly offers this "convincing and attractive alternative imaginary of science-policy practices" [99] (p. 1) where each stakeholder may discuss what from their point of view as Subject constitute the Object of their ecosystem quest, what they conceive as the beneficiary Receivers, and what constitutes the Helpers and the Opponents. These fundamental yet simple elements allow the "production of knowledge and action [that] can effectively be fostered across different contexts and on a global scale" [100] (p. 128). However, perhaps more interestingly from a critical point of view, it allows us to compare how stakeholders frame their narratives, how dominant stakeholders, powerful institutions, and political elites frame the sustainable/resilient quests for the "vital capitals" of targeted ecosystems, and how it provides sufficient flexibility for other stakeholders to engage in these quests that oppose their own views.

Thirdly, adopting the actantial model to decrypt the trajectories that communities wish to undergo to maintain or acquire the vital capital clearly indicates the unavoidable normative nature of the issues behind the ontology of 'resilience'. In this respect, the actantial model provides planners and sustainability scientists with a device that helps frame the diversity clearly and the concrete results of communities' quests in a time when they are asked to remain or be "resilient" without informing them about the true meaning of this concept. In that sense, one can agree with Xu et al. [16] that 'resilience' per se is not desirable. Yet the actantial model shows how one can translate the desirable objective of a community into an Object that clearly indicates the trajectories a community takes, tracing the difficulties (Opponent) and support (Helpers) needed to reach its destination. As an analytical tool to discuss these sustainable trajectories for a community, the actantial model can shed light on the ultimate and unmissable normative and political nature behind the idea of resilience by posing the question: "What should a community aim for?" In this sense, the authors concur with Cañizares et al. [21] about the risk of the profound depoliticisation of the debate in the sustainability narrative and believe that the use of the actantial model by community practitioners demonstrates the ultimately political nature of this issue.

Finally, by arguing that beyond the definitions of concepts such as those of 'resilience' or sustainability, there is an opportunity to clarify them through a 'narrative program'; the author can only concur with Ameel's call for more narrative literacy in the field of planning practices since planning is definitely and "fundamentally concerned with storytelling" [41]. Once again, the actantial model offers readers a simple grammar to help understand planning storylines.

While it is clear that the actantial model is not limited to rural communities as it provides a holistic approach for decoding or formulating planning quests of communities with different political makeups and of varying size, one may be more sensitive to the challenges that smaller communities face by selecting the resilience and sustainability assessment tool. A series of initiatives may be still undertaken to address certain limitations beyond the scope of the present article. It is argued in this paper that the actantial model offers a straightforward way to map, assess, and communicate the quest that rural communities may undertake to preserve their vital assets and counter the threats to them.

Nevertheless, the operationalisation of this approach is far from being a given and many rural communities face challenges in their planning process for several reasons, including financial constraints, human resource limitations, community engagement deficits, and policy and administrative barriers. Further research assessing and testing the implementation process of the approach deserves to be undertaken to identify the enablers and hindrances of the approach within planning processes, especially in communities where those processes are arduous. Moreover, as planning goals often differ between stakeholder perspectives (including people from the same institutions), further analyses should be conducted to evaluate the level of divergence between these perspectives, notably between various subjects of enunciations (those who produce the narratives) and the subjects of the narrative (those who undertake the quest to a 'sustainable' Object). Visual comparative analyses using the actantial model graph would facilitate such a comparison. Finally, while the actantial model offers a solid way to reframe the resilient narrative though the identification of concrete, idealised objectives ($[S \land I_k]^{t1} \land D \rightarrow [S \land I_k]^{t2}$), the veridictory evaluation remains a crucial element of sustainability narratives. While political discourse and planning rhetoric may always be ambiguous, the capacity of confronting divergent narratives (thymic perspectives, to use Greimassian terminology) articulated through the actantial model would also deserve further practical and empirical research. As observed by some of the authors mentioned in Section 4 of this paper, the relationship between political form of control over certain narratives (or those who can speak) and the validity of scientific assessment is a sensitive one that the actantial model can solve by itself, while it can provide a comparative framework to compare narratives and how they are adopted within certain political frameworks articulated by those with an unequal capacity to speak or decide which narrative should be adopted. Once again, storytelling literacy may offer some support to critically assess what is at stake in the assessment of our ecosystems.

Despite their infinite diversity of political instruments and technical instructions, small rural communities may find a simple way to reformulate their search for a solution by focusing on their realities in a post-resilience framework constructed around the six fundamental actants. By framing their planning storyline using the actantial model, they can also compare their community 'vital capital' quest(s) with other similar or dissimilar rural communities.

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References

- Nguyen, H.L.; Akerkar, R. Modelling, Measuring, and Visualising Community Resilience: A Systematic Review. Sustainability 2020, 12, 7896. [CrossRef]
- Sharifi, A. A Critical Review of Selected Tools for Assessing Community Resilience. Ecol. Indic. 2016, 69, 629–647. [CrossRef]
- 3. Gillespie-Marthaler, L.; Nelson, K.; Baroud, H.; Abkowitz, M. Selecting Indicators for Assessing Community Sustainable Resilience. *Risk Anal.* **2019**, *39*, 2479–2498. [CrossRef]
- 4. Lew, A.A.; Ng, P.T.; Ni, C.; Wu, T. Community Sustainability and Resilience: Similarities, Differences and Indicators. *Tour. Geogr.* **2016**, *18*, 18–27. [CrossRef]

5. Nüchter, V.; Abson, D.J.; von Wehrden, H.; Engler, J.O. The Concept of Resilience in Recent Sustainability Research. *Sustainability* **2021**, *13*, 2735. [CrossRef]

- Kaye-Blake, W.; Stirrat, K.; Smith, M.; Fielke, S. Testing Indicators of Resilience for Rural Communities. Rural Soc. 2019, 28, 161–179. [CrossRef]
- 7. Kim, G.; Kang, W.; Lee, J. Knowledge Structures and Components of Rural Resilience in the 2010s: Conceptual Development and Implications. *Sustainability* **2020**, *12*, *9769*. [CrossRef]
- 8. Mackay, M.; Petersen, K. Rural Community Resilience: Research Stocktake and Annotated Bibliography; Lincoln University: Christchurch, New Zealand, 2015.
- 9. Greimas, A.J. Sémantique Structurale; Larousse: Paris, France, 1966; ISBN 2-03-070314-1.
- 10. Achour, N.; Pantzartzis, E.; Pascale, F.; Price, A.D.F. Integration of Resilience and Sustainability: From Theory to Application. *Int. J. Disaster Resil. Built Environ.* **2015**, *6*, 347–362. [CrossRef]
- Resilient Cities Network. Resilient Cities, Resilient Lives. Learning from the 100RC Network. Report, n.p. 2019. Available online: https://resilientcitiesnetwork.org/downloadable_resources/UR/Resilient-Cities-Resilient-Lives-Learning-from-the-100RC-Network.pdf (accessed on 26 May 2024).
- 12. European Commission. *Proposal for a Council Regulation Establishing a European Union Recovery Instrument to Support the Recovery in the Aftermath of the COVID-19 Pandemic*; European Commission: Brussels, Belgium, 2020; Volume COM(2020).
- 13. Ayyub, B.M.; Wright, R.N. Adaptive Climate Risk Control of Sustainability and Resilience for Infrastructure Systems. *J. Geogr. Nat. Disasters* **2016**, *6*, 2–4. [CrossRef]
- 14. Brand, F.S.; Jax, K. Resilience as a Descriptive Concept and a Boundary Object. Ecol. Soc. 2007, 12, art23. [CrossRef]
- 15. Marchese, D.; Reynolds, E.; Bates, M.E.; Morgan, H.; Clark, S.S.; Linkov, I. Resilience and Sustainability: Similarities and Differences in Environmental Management Applications. *Sci. Total Environ.* **2018**, *613–614*, 1275–1283. [CrossRef]
- 16. Xu, L.; Marinova, D.; Guo, X. Resilience Thinking: A Renewed System Approach for Sustainability Science. *Sustain. Sci.* **2015**, *10*, 123–138. [CrossRef]
- 17. Horcea-Milcu, A.I.; Martín-López, B.; Lam, D.P.M.; Lang, D.J. Research Pathways to Foster Transformation: Linking Sustainability Science and Social-Ecological Systems Research. *Ecol. Soc.* **2020**, 25, 13. [CrossRef]
- 18. Redman, C.L. Should Sustainability and Resilience Be Combined or Remain Distinct Pursuits? Ecol. Soc. 2014, 19, 37. [CrossRef]
- 19. Lovell, E.; Bahadur, A.; Tanner, T.; Morsi, H. *Resilience. The Big Picture*; Overseas Development Institute: London, UK, 2016; Available online: https://media.odi.org/documents/10626.pdf (accessed on 26 May 2024).
- 20. Mazur, C.; Hoegerle, Y.; Brucoli, M.; van Dam, K.; Guo, M.; Markides, C.N.; Shah, N. A Holistic Resilience Framework Development for Rural Power Systems in Emerging Economies. *Appl. Energy* **2019**, 235, 219–232. [CrossRef]
- 21. Cañizares, J.C.; Copeland, S.M.; Doorn, N. Making Sense of Resilience. Sustainability 2021, 13, 8538. [CrossRef]
- 22. Elmqvist, T.; Andersson, E.; Frantzeskaki, N.; McPhearson, T.; Olsson, P.; Gaffney, O.; Takeuchi, K.; Folke, C. Sustainability and Resilience for Transformation in the Urban Century. *Nat. Sustain.* **2019**, *2*, 267–273. [CrossRef]
- 23. Johnson, J.L.; Zanotti, L.; Ma, Z.; Yu, D.J.; Johnson, D.R.; Kirkham, A.; Carothers, C. Interplays of Sustainability, Resilience, Adaptation and Transformation. In *Handbook of Sustainability and Social Science Research*; Filho, W.L., Marans, R.W., Callewaert, J., Eds.; Springer: Cham, Switzerland, 2018; pp. 3–25. ISBN 9783319671222.
- 24. Thorén, H.; Olsson, L. Is Resilience a Normative Concept? Resilience 2017, 6, 112–128. [CrossRef]
- 25. Carpenter, S.; Walker, B.; Anderies, J.M.; Abel, N. From Metaphor to Measurement: Resilience of What to What? *Ecosystems* **2001**, 4,765–781. [CrossRef]
- 26. Ferrarello, S. The Normative Space of Resilience. Jahr 2021, 12, 267–284. [CrossRef]
- 27. Thorén, H. Resilience as a Unifying Concept. Int. Stud. Philos. Sci. 2014, 28, 303–324. [CrossRef]
- 28. van der Hel, S. Science for Change: A Survey on the Normative and Political Dimensions of Global Sustainability Research. *Glob. Environ. Change* **2018**, *52*, 248–258. [CrossRef]
- 29. Folke, C.; Carpenter, S.R.; Walker, B.; Scheffer, M.; Chapin, T.; Rockström, J. Resilience Thinking: Integrating Resilience, Adaptability and Transformability. *Ecol. Soc.* **2010**, *15*, 20. [CrossRef]
- 30. Meerow, S.; Newell, J.P.; Stults, M. Defining Urban Resilience: A Review. Landsc. Urban Plan 2016, 147, 38–49. [CrossRef]
- 31. van Hulst, M. Storytelling, a Model of and a Model for Planning. Plan. Theory 2012, 11, 299–318. [CrossRef]
- 32. Throgmorton, J.A. Planning as Persuasive Storytelling about the Future: Negotiating an Electric Power Rate Settlement in Illinois. *J. Plan Educ. Res.* **1992**, *12*, 17–31. [CrossRef]
- 33. Throgmorton, J.A. *Planning as Persuasive Storytelling: The Rhetorical Construction of Chicago s Electric Future*; University of Chicago Press: Chicago, IL, USA, 1996.
- 34. Throgmorton, J.A. Planning as Persuasive Storytelling in a Geobal-Scale Web of Relationships. *Plan. Theory* **2003**, *2*, 125–151. [CrossRef]
- 35. Forester, J. Practice Stories: The Priority of Practical Judgment. In *The Argumentative Turn in Policy Analysis and Planning*; Fischer, F., Forester, J., Eds.; Duke University Press: London, UK, 1993; pp. 186–210.
- 36. Beauregard, R.A. Advanced Introduction to Planning Theory; Edward Elgar Publishing: Cheltenham, UK, 2020; ISBN 9781788978897.
- 37. Beauregard, R.A. Cities in the Urban Age. A Dissent; The University of Chicago Press: Chicago, IL, USA; London, UK, 2018; ISBN 9780226535418.

38. Tewdwr-Jones, M. *The Planning Polity: Planning, Government and the Policy Process*, 2nd ed.; Routledge: London, UK; New York, NY, USA, 2005; ISBN 0415286557.

- 39. Dixon, T.J.; Karuri-Sebina, G.; Ravetz, J.; Tewdwr-Jones, M. Re-Imagining the Future: City-Region Foresight and Visioning in an Era of Fragmented Governance. *Reg. Stud.* **2023**, *57*, 609–616. [CrossRef]
- 40. Clifford, B.; Tewdwr-Jones, M. *The Collaborating Planner? Practitioners in the Neoliberal Age*; The Policy Press: Bristol, UK, 2013; ISBN 978-1447305118.
- 41. Ameel, L. New Directions for Narrative Approaches to Urban Planning. Fenn.-Int. J. Geogr. 2022, 199, 291–293. [CrossRef]
- 42. Ameel, L. *The Narrative Turn in Urban Planning. Plotting The Helsinki Waterfront*; Routledge: Oxon, UK; New York, NY, USA, 2021; Volume 4, ISBN 9781003094173.
- 43. James, E.; Morel, E. Ecocriticism and Narrative Theory: An Introduction. Engl. Stud. 2018, 99, 355–365. [CrossRef]
- 44. Lejano, R.; Ingram, M.; Ingram, H. The Power of Narrative in Environmental Networks; MIT Press: London, UK, 2013; ISBN 9780262019378.
- 45. Mendes, R.; Fidélis, T.; Roebling, P.; Teles, F.; Farrelly, M. What Is Spatial Planning Saying? A Conceptual and Methodological Framework to Assess the Institutionalization of Nature Using Critical Discourse Analysis. *Crit. Discourse Stud.* 2024, 21, 274–292. [CrossRef]
- 46. Vasan, S. The Environment as a Meta-Narrative: Introduction to a Special Issue. J. Dev. Soc. 2021, 37, 143–150. [CrossRef]
- 47. Purves, R.S.; Koblet, O.; Adams, B.; Lund, K.A.; Jones, K.; Luria, S.; Wartmann, F.; Fairclough, G.; Viehhauser, G. Interdisciplinary Perspectives on Environmental Narratives. In *Unlocking Environmental Narratives: Towards Understanding Human Environment Interactions through Computational Text Analysis*; Purves, R.S., Koblet, O., Adams, B., Eds.; Ubiquity Press: London, UK, 2022; pp. 17–42.
- 48. Gottdiener, M.; Lagopoulos, A.P. *The City and the Sign. An Introduction to Urban Semiotics*; Gottdiener, M., Lagopoulos, A.P., Eds.; Columbia University Press: New York, NY, USA, 1986; ISBN 0231061463.
- 49. Bellentani, F.; Arkhipova, D. The Built Environment in Social Media: Towards a Biosemiotic Approach. *Biosemiotics* **2022**, *15*, 193–213. [CrossRef]
- 50. Polack, J.D.; Taupin, P.; Jo, H.I.; Jeon, J.Y. Urban Soundscapes in the Imaginaries of Native Digital Users: Guidelines for Soundscape Design. *Sustainability* **2022**, *14*, 632. [CrossRef]
- 51. Caracciolo, M. Notes for an Econarratological Theory of Character. Front. Narrat. Stud. 2018, 4, s172–s189. [CrossRef]
- 52. Dosse, F. History of Structuralism; University of Minnesota Press: Minneapolis, MN, USA, 1997; Volume 1, ISBN 0816622396.
- 53. Desmarais, G. Dynamique du Sens; Septentrion: Sillery, QC, Canada, 1998.
- 54. Petitot-Concordat, J. Morphogenèse du Sens I; Presses Universitaires de France: Paris, France, 1985.
- 55. Audrin, B. Implementing Self-Service Technologies: Not without Competition! *Int. J. Retail Distrib. Manag.* **2020**, *48*, 169–185. [CrossRef]
- 56. Boudès, T. Faut-II Demander des Contes au Management Stratégique? La Dimension Narrative de la Stratégie d'Entreprise. In Proceedings of the XI Conference of the Association Internationale de Management Statégique, Paris, France, 6–9 June 2002. Available online: https://www.strategie-aims.com/conferences/12-xieme-conference-de-l-aims/communications/768-faut-il-demander-des-contes-au-management-strategique-la-dimension-narrative-de-la-strategie-dentreprise/download (accessed on 26 May 2024).
- 57. Boudès, T.; Christian, D. Du Reporting au Raconting dans la Conduite des Projets. *Ann. Mines* **2000**, 52–63. Available online: https://www.annales.org/gc/2000/gc03-2000/52-63.pdf (accessed on 26 May 2024).
- 58. Demers, C.; Giroux, N.; Chreim, S. Merger and Acquisition Announcements as Corporate Wedding Narratives. *J. Organ. Change Manag.* **2003**, *16*, 223–242. [CrossRef]
- 59. Gertsen, M.C.; Søderberg, A.-M. Intercultural Collaboration Stories: On Narrative Inquiry and Analysis as Tools for Research in International Business. *J. Int. Bus. Stud.* **2011**, 42, 787–804. [CrossRef]
- 60. Habib, J.; Vandangeon-Derumez, I. "Accountability" or Providing an "Account". The Example of SBF 120 CEOs | le Rôle du Leader Formel dans la Transformation des Organisations Pluralistes: Analyse Comparée de Deux Hôpitaux. *Rev. Fr. Gest.* 2015, 247, 45–66. [CrossRef]
- 61. Oh, J.-E.; Ma, H. Enhancing Visitor Experience of Theme Park Attractions: Focusing on Animation and Narrative. *J. Adv. Res. Dyn. Control Syst.* **2018**, *10*, 178–185.
- 62. Schembri, S.; Karsaklian, E. Who Sees What? One Print Advertisement and a Dual Semiotic Analysis. *Int. J. Mark. Semiot.* **2014**, *2*, 63–79.
- 63. Dam, H.V.; Zethsen, K.K. Translator Status: Helpers and Opponents in the Ongoing Battle of an Emerging Profession. *Target* **2010**, 22, 194–211. [CrossRef]
- 64. Vilhjálmsdóttir, G.; Tulinius, T.H. Tales of Two Subjects: Narratives of Career Counseling. *J. Vocat. Behav.* **2009**, 75, 267–274. [CrossRef]
- 65. Zethsen, K.K.; Askehave, I. Talking Translation: Is Gender an Issue? Gend. Lang. 2013, 7, 117–134. [CrossRef]
- 66. Linard, M. From Learner's Styles to Learner's Activity: Lessons from Various Learner-Centered Research. *IFIP Trans. A* **1994**, 46, 57–79.
- 67. Jézégou, A. The Influence of the Openness of an E-Learning Situation on Adult Students' Self-Regulation. *Int. Rev. Res. Open Distance Learn.* **2013**, *14*, 182–201. [CrossRef]

- 68. Jyoti. Image, Text and Malaria: Creative Production of a Comic Book. Soc. Cult. South Asia 2018, 4, 64–93. [CrossRef]
- 69. Kataja, K.; Hakkarainen, P.; Koivula, P.; Hautala, S. Sharing Risk Experiences of Polydrug Use on YouTube. *Drugs Alcohol Today* **2018**, *18*, 188–197. [CrossRef]
- 70. Dobler, G.; Malets, O.; Suda, M. Critique as a Story about a Story: A Narrative Semiotic Analysis of the Television Reporting on Forest Certification | Kritik Als Erzählung Über Eine Erzählung: Analyse von Fernsehbeiträgen Über Waldzertifizierung Anhand Eines Aktantenmodells Narrativers. *Allg. Forst-Jagdztg.* **2014**, *185*, 220–234.
- 71. Pavlović Jovanović, J.M. Semoitic Characteristics of the Magazine Politikin Zabavnik at the Beginning of the 21st Century | Semiotičke Odlike Lista Politikin Zabavnik na Početku 21. Veka. *Komun. Kult. Online* **2020**, *11*, 172–187. [CrossRef]
- 72. Steblyna, N.; Matsyshyna, I.; Skalatska, O. The COVID-19 Pandemic, Twitter, and the Archetype of "Country Savior" in the Ukrainian Case. *Stud. Politica* **2022**, 22, 67–95.
- 73. Wang, Y.; Roberts, C.W. Actantial Analysis Greimas's Structural Approach to the Analysis of Self-Narratives Yong. *Narrat. Inq.* **2005**, *15*, 51–74. [CrossRef]
- 74. Pruekchaikul, K. Identity Construction in Advertising. Concentric Stud. Linguist. 2019, 45, 112–140. [CrossRef]
- 75. Räisänen, M. Counter from the Cathedra: Democratic School Workers Association Redefining Teachers' Political Agency in Finland 1973–1989. *Paedagog. Hist.* **2014**, *50*, 533–553. [CrossRef]
- 76. de Vries, K. You Never Fake Alone. Creative AI in Action. Inf. Commun. Soc. 2020, 23, 2110–2127. [CrossRef]
- 77. Lim, S.-Y. A Comparison Analysis of the Structure of Meaning Generation in 'Dangun Myth'; and 'Leafie, A Hen into the Wild'. *J. Eng. Appl. Sci.* **2017**, *12*, 3627–3632.
- 78. Gadais, T.; Décarpentrie, L.; Webb, A.; Ayoub, M.-B.; Bardocz-Bencsik, M.; Bélanger, C. A Method for Conducting Preliminary Analysis of the Nature and Context of Sport for Development and Peace Project. *Front. Sports Act. Living* **2021**, *3*, 658496. [CrossRef]
- 79. Song, C. Rôles et Parcours Actantiels dans les Sports Collectifs. Le Cas du Football: Contribution à Une Sémiotique des Pratiques Sportives; Université de Limoges: Limoges, France, 2003.
- 80. Webb, A. Actantial Insights: Making Sense of Sport for Development Performance Account Management. *J. Glob. Sport Manag.* **2022**, *7*, 327–344. [CrossRef]
- 81. Fowler, M.D. From Actantial Model to Conceptual Graph: Thematized Action in John Cage's 0'00'(4'33"No. 2). *J. Math. Music* **2020**, *14*, 307–328. [CrossRef]
- 82. Desmarais, G. Des Prémisses de la Théorie de la Forme Urbaine au Parcours Morphogénétique de l'Établissement Humain. *Cah. Geogr. Que.* **1992**, *36*, 251–273. [CrossRef]
- 83. Desmarais, G. La Morphogénèse de Paris. Des Origines à la Révolution; L'Harmattan: Paris, France, 1995; ISBN 978-2738434852.
- 84. Desmarais, G.; Ritchot, G. La Géographie Structurale; L'Harmattan: Paris, France, 2000; ISBN 7384-7534-5.
- 85. Ampleman, L. Transportation Planning and Sustainable Development in the Far North: The Main Barriers and Potential Avenues. In *Politics of Development in the Barents Region*; Tennberg, M., Ed.; Lapland University Press: Rovaniemi, Finland, 2012; pp. 180–221. ISBN 9789524845564.
- 86. Greimas, A.J.; Courtés, J. Semiotics and Language. An Analytical Dictionary; Indiana Press University: Bloomington, IL, USA, 1982.
- 87. Hébert, L. An Introduction to Applied Semiotics. Tools for Text and Image Analysis; Routledge: London, UK; New York, NY, USA, 2020; ISBN 9780367351113.
- 88. EU CAP Network. *Reinforcing Rural Tourism Resilience*; EU CAP Network: Brussels, Belgium, 2023. Available online: https://eu-cap-network.ec.europa.eu/sites/default/files/publications/2023-06/EUCAPNetwork_PolicyInsights_ReinforcingRuralTourismResilience.pdf (accessed on 26 May 2024).
- 89. European Commission—Agriculture and Rural Department. *Approved 28 CAP Strategic Plans* (2023–2027). *Summary Overview for 27 Member States Facts and Figures*; European Commission: Brussels, Belgium, 2023.
- 90. European Commission—Agriculture and Rural Department. The Common Agricultural Policy at a Glance. Available online: https://agriculture.ec.europa.eu/common-agricultural-policy/cap-overview/cap-glance_en (accessed on 16 September 2023).
- 91. Ameel, L.; Gurr, J.M.; Buchenau, B. *Narrative in Urban Planning. A Practical Field Guide*; Ameel, L., Gurr, J.M., Buchenau, B., Eds.; Transcript Verlag: Bielefeld, Germany, 2023; ISBN 9783837666175.
- 92. Farhat, R. Progressive Planning, Biased Discourse, and Critique: An Agentic Perspective. Plan. Theory 2014, 13, 82–98. [CrossRef]
- 93. Gadsden, G.I.; Golden, N.; Harris, N.C. Place-Based Bias in Environmental Scholarship Derived from Social—Ecological Landscapes of Fear. *Bioscience* **2023**, *73*, 23–35. [CrossRef]
- 94. Scott, H. Explainer: Critical Discourse Analysis: Narrative Approach; National Socio-Environmental Synthesis Center (SESYNC): Annapolis, MD, USA, 2023.
- 95. Veland, S.; Scoville-Simonds, M.; Gram-Hanssen, I.; Schorre, A.K.; El Khoury, A.; Nordbø, M.J.; Lynch, A.H.; Hochachka, G.; Bjørkan, M. Narrative Matters for Sustainability: The Transformative Role of Storytelling in Realizing 1.5 C Futures. *Curr. Opin. Environ. Sustain.* **2018**, *31*, 41–47. [CrossRef]
- 96. Global Network of Civil Society. Coherence Cookbook: Resilience; Global Network of Civil Society: London, UK, 2019.
- 97. Pohl, C.; Hirsch Hadorn, G. *Principles for Designing Transdisciplinary Research*; Oekom Verlag: Munich, Germany, 2007; ISBN 978-3-86581-046-5.
- 98. Rekola, A.; Paloniemi, R. Researcher—Planner Dialogue on Environmental Justice and Its Knowledges—A Means to Encourage Social Learning Towards Sustainability. *Sustainability* **2018**, *10*, 2601. [CrossRef]

99. Maas, T.Y.; Pauwelussen, A.; Turnhout, E. Co-Producing the Science–Policy Interface: Towards Common but Differentiated Responsibilities. *Humanit. Soc. Sci. Commun.* **2022**, *9*, 93. [CrossRef]

- 100. Schneider, F.; Tribaldos, T.; Adler, C.; Biggs, R.; de Bremond, A.; Buser, T.; Krug, C.; Loutre, M.F.; Moore, S.; Norström, A.V.; et al. Co-Production of Knowledge and Sustainability Transformations: A Strategic Compass for Global Research Networks. *Curr. Opin. Environ. Sustain.* **2021**, 49, 127–142. [CrossRef]
- 101. Turnhout, E.; Metze, T.; Wyborn, C.; Klenk, N.; Louder, E. The Politics of Co-Production: Participation, Power, and Transformation. *Curr. Opin. Environ. Sustain.* **2020**, 42, 15–21. [CrossRef]
- 102. Hamborg, S.; Meya, J.N.; Eisenack, K.; Raabe, T. Rethinking Resilience: A Cross-Epistemic Resilience Framework for Interdisciplinary Energy Research. *Energy Res. Soc. Sci.* **2020**, *59*, 101285. [CrossRef]
- 103. Reed, M.S. Stakeholder Participation for Environmental Management: A Literature Review. *Biol. Conserv.* **2008**, *141*, 2417–2431. [CrossRef]
- 104. Boswell, C.; Smith, K. Rethinking Policy "Impact": Four Models of Research-Policy Relations. *Palgrave Commun.* **2017**, *3*, 44. [CrossRef]
- 105. Horton, P.; Brown, G.W. Integrating Evidence, Politics and Society: A Methodology for the Science–Policy Interface. *Palgrave Commun.* **2018**, *4*, 42. [CrossRef]
- 106. Joseph, J. Resilience as Embedded Neoliberalism: A Governmentality Approach. *Int. Policies Pract. Discourses* **2013**, *1*, 38–52. [CrossRef]
- 107. Kaika, M. 'Don't Call Me Resilient Again!': The New Urban Agenda as Immunology ... or ... What Happens when Communities Refuse to Be Vaccinated with 'Smart Cities' and Indicators. *Environ. Urban* **2017**, 29, 89–102. [CrossRef]
- 108. Rovelli, C. Taken under Cover of Science behind Science. Nat. Mater. 2021, 20, 272. [CrossRef]
- 109. Fuller, S. The Intellectual; Icon Books: Cambridge, UK, 2005.
- 110. Healy, E.; Ross, A. Unheard Voices: Climate Change as a Matter of Social Justice. Foresight, Centro Euro-Mediterraneo sui Cambiamenti Climatici. 10 June 2022. Available online: https://www.climateforesight.eu/articles/unheard-voices-climate-change-as-a-matter-of-social-justice/ (accessed on 26 May 2024).
- 111. Sénit, C.A. Transforming Our World? Int. Environ. Agreem. 2020, 20, 411-429. [CrossRef]
- 112. Lam, D.P.M.; Hinz, E.; Lang, D.J.; Tengö, M.; von Wehrden, H.; Martín-López, B. Indigenous and Local Knowledge in Sustainability Transformations Research: A Literature Review. *Ecol. Soc.* **2020**, 25, 3. [CrossRef]
- 113. Goldstein, B.E.; Wessells, A.T.; Lejano, R.; Butler, W. Narrating Resilience: Transforming Urban Systems Through Collaborative Storytelling. *Urban Stud.* **2015**, *52*, 1285–1303. [CrossRef]
- 114. United Nations Environment Programme. *Reflecting on the Past and Imagining the Future: A Contribution to the Dialogue on the Science-Policy Interface;* UNEP: Nairobi, Kenya, 2021.

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