

# Understanding the Relationship Between Adaptation and Selection Processes Through the Lenses of Organizational Theories

# Uyum ve Seçilim Süreçleri Arasındaki İlişkileri Örgüt Kuramları Perspektifinden Anlamak

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## Abstract

There are different approaches to analyzing the relationship between organization and environment in the scope of organization theory. This review examines the environmental relationship of organizations in the scope of adaptation and selection processes in organizational theories. Specifically, we focus on four organizational theories: population ecology, institutional theory, resource dependence, and contingency theory. First, we explain the main assumptions and criticisms of the four theories. We also outline how adaptation and selection dynamics influence organizations in their environment. Then, we examine complementary aspects of the adaptation and selection processes based on organizational theories. Lastly, we discuss the benefits and limitations of the integrated adaptation and selection process and provide insight for future studies.

**Anahtar kelimeler:** Adaptation, selection, population ecology, institutional theory, resource dependence theory, contingency theory

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## Özet

Örgüt kuramları kapsamında çevre ve örgütler arasındaki ilişkiyi açıklamaya çalışan farklı birçok perspektif bulunmaktadır. Bu çalışmanın amacı örgüt kuramları kapsamında çevre ve örgütler arasındaki ilişkinin uyum ve seçim süreçleri ile ilişki açıklanmasıdır. Spesifik olarak, çalışma kapsamında kurumsal kuram, popülasyon ekolojisi, kaynak bağımlılık ve koşul bağımlılık olmak üzere dört örgüt kuramı ele alınmıştır. İlk olarak, çalışma kapsamında yer verilen dört örgüt kuramı ana varsayımları ve eleştirileriyle birlikte açıklanmıştır. Bununla birlikte, uyum ve seçim süreçlerine ilişkin dinamiklerin örgütlerin çevre ile ilişkilerini nasıl etkiledikleri değerlendirilmiştir. Ardından, her bir teorinin çevreyi açıklama sürecinde ortaya koydukları adaptasyon ve seçim anlayışları da karşılaştırılmalı olarak ele alınmıştır. Son olarak, uyum ve seçim sürecini bütüncül olarak değerlendirmenin yarar ve kısıtları incelenerek, gelecek çalışmalar için öneriler geliştirilmiştir.

**Keywords:** Adaptasyon ve seçim süreci, popülasyon ekolojisi, kurumsal kuram, kaynak bağımlılığı, koşul bağımlılık

## Introduction

The article aims to compare organizations' adaptation and selection explanations in population ecology, institutional, resource dependency, and contingency theories. In these approaches, adaptation and selection process have distinct meanings as two separate concepts. However, we believe that adaptation and selection are different processes that take part in the same evolutionary process. They complement each other by focusing on different aspects of the relationship between organizations and their environments. From this perspective, we argue that there is an interplay relation between adaptation and selection of organizations. To explain the interrelation of selection and adaptation processes, we have selected four organizational theories to compare their arguments. The population ecology theory focuses on the role of selection processes (Hannan and Freeman, 1977). The institutional theory explains adaptation with legitimacy (Suddaby et al., 2017). The resource dependency theory proposes that organizations' access to resources and dependency conditions influence adaptation (Pfeffer & Salancik, 1978).

In contrast, contingency theory claims that individual organizations adapt to their environments (Donaldson, 2001). All these theoretical explanations in terms of the relationship among organizations and environment include dimensions of an evolutionary process. In this respect, we point out the integrative advantages of selection and adaptation processes.

Following this aim, in the next section, we give a brief description of both approaches. Of course, these are just the central premises of these approaches. It is possible to give more detail about different fragments of them. However, since the article aims to focus on adaptation and selection, we also discuss each approach's explanations and problems. We will try to denote how we can avoid these problems by complementing these approaches to analyze the dynamics at the organizational and population levels. In the third section, we point out some of the problems of each theory to show that the other can supplement one approach's explanatory gaps. In the fourth section, we compare each theory according to the adaptation and selection processes. We conclude in the last section with a discussion of the benefits and limitations of our perspective.

## **How Theories Explain Adaptation and Selection**

### ***Contingency Theory***

According to contingency theory, organizations adapt to their environments to survive (Donaldson, 1995). Depending on different environmental conditions, organizations make decisions, particularly concerning the organizational structure (Woodward, 1970; Burns & Stalker 1961; Pugh et. al., 1969). Therefore, there is not the best way to organize the structure of an organization, but there should be a fit between the environment and the structure. In the case of a misfit, the organization will end up with poor performance and vice versa.

In the process of adaptation of the organization to its environment, the main role is assigned to the leader since the leader is assumed to be the one making the decisions in terms of the structure (Donaldson, 1995). If the leader succeeds in finding out the best structure that fits the environment, the organization succeeds in the adaptation process. As it is clear from the assumptions of contingency theory, the level of analysis is the organization level.

### ***Population Ecology***

Population ecology has provided a new perspective to organization studies by incorporating a more sociological understanding of the organizations. The theory defines a population by a group of organizations that engages in similar activities and aims to understand how organizations born, grow up and die as if they are

living organisms. Here, natural selection determines which organization will survive and die (Scott 1992), and because of organizational inertia, organizations cannot adapt to their environments. In other words, if the organizations have a fit with the environment, then they will survive but they are not seen as adaptive entities.

In comparison to previous approaches, population ecology focuses on the population of organizations rather than a single organization as the level of analysis.

### ***Institutional Theory***

Another organizational approach that includes the adaptation and selection processes in its dynamics is institutional theory. The institutional theory has its origins in Selznick's work (1947), and it is also a popular theory among organizational researchers. From the 1970s to the present, institutional scholars try to answer why organizations are similar to each other (Meyer & Rowan, 1977; Zucker, 1977; DiMaggio & Powell, 1983; Tolbert & Zucker, 1983; DiMaggio, 1988). Institutional theorists suggested that legitimacy is a crucial factor for adapting to the environment and ultimate survival (Suchman, 1995; Suddaby & Greenwood, 2005, Powell & DiMaggio, 2012; Suddaby et al., 2017). According to institutional theory, legitimacy is the driving force of organizational survival. It is also an indicator of adaptation to the environment. From an institutional perspective, legitimacy is also an indicator of whether an organization successfully adapts to its environment or not.

Although legitimacy is an essential concept for organizations, each organization theory defines legitimacy from a different perspective. According to the population ecology, legitimacy refers to the prevalence of an organizational form in a population (Baum & Shipilov, 2006). In this point, legitimacy refers to a cognitive dimension that indicates the number of similar organizational forms within a population (Hannan & Freeman, 1984). From the resource dependency perspective, the pursuit of legitimacy is an essential strategy that helps organizations reach critical resources and manage power relationships by administrative actors (Wry et al., 2013). Both theories give an instrumental meaning to legitimacy in the adaptation process.

In the context of institutional theory, legitimacy has a purposeful significance rather than an instrumental meaning. For example, Suchman (1995) defined legitimacy as a generalized perception representing fitness for socially constructed context. Organizations accommodate legitimacy criteria which include pragmatic,

moral, and cognitive enforcement, to fit the environmental pressures. In other words, legitimacy reflects the organization's conformity to an organizational field, indicating institutionalism. According to DiMaggio and Powell (1983), organizations try to fit the institutional pressures and gain legitimacy through institutional isomorphism, which includes three dimensions: coercive isomorphism, mimetic isomorphism, and normative isomorphism (DiMaggio & Powell, 1983). Each dimension provides organizations ways to overcome institutional pressures and homogenize institutional fields, producing common organizational patterns (DiMaggio & Powell, 1983).

The early studies in the institutional theory give passive roles to actors and organizations in adaptation and selection processes. This situation caused some criticisms, highlighting processes of change and actors' role in the organizational field (Wooten & Hoffman, 2008). To answer these criticisms, Oliver (1991) argued that although isomorphism and legitimacy mechanism helps the organization gain a place in organizational fields, organizations sometimes develop strategies against institutional pressures. More specifically, Lawrence and Suddaby (2006) have highlighted that organizations and institutional actors in an organizational field do not have a limited role. The purposive action of powerful actors and organizations (institutional entrepreneurship) also shapes institutions and organizational fields. In other words, there is an interactive relationship between institutions, organizations, and organizational fields, which causes the creation, maintenance, and disruption of institutions (Lawrence et al., 2011). This interactive relationship establishes the agency's efficacy and provides a practice-driven perspective in institutional theory (Smets et al., 2017). In that sense, even though legitimacy plays a key role in institutional theory for organizational adaptation, still, actors and organizations can affect what is legitimate or not in the field.

### ***Resource Dependence Theory***

Like humankind, organizations also depend on legitimacy, resources, power, or other organizations to survive. At this point, the theory of resource dependency originates in Pfeffer and Salancik's work on the organizational ability to acquire and maintain needed resources to survive in their external environment (Pfeffer & Salancik, 1978). Moreover, the resource dependence theory posits that an organization is not self-contained in its environment. Each organization has different relationships with other actors and organizations in its organizational environment.

These relationships create organizational dependencies, primarily due to iterative and persistent relationships by these organization's mutual interests (Hillman et al.,2009).

To evaluate the dependencies on organizational survival, we need to understand the theoretical roots of resource dependence regarding the environment. The primary difference between the resource dependency theory with other theories in our analysis is its actor-oriented perspective. Pfeffer and Salancik (1978) have pointed out that organizations try to minimize their dependencies with different actions. These actions may include integration strategies, strengthening inter-organizational relationships, strategies on board of directors, supporting political action, or using executive succession. Through these actions, organizations minimize or manage their dependencies, provide organizational effectiveness, and respond to environmental constraints (Daft, 2015). Furthermore, organizations that experience dependencies or environmental constraints can adapt their process according to environmental expectations. They may also follow decoupling strategies to respond to environmental pressures (Davis & Cobb, 2010; Boxenbaum & Jonsson, 2017).

These explanations indicate that organizations are not passive actors against their environment or uncertainties. They can change the balance of relationships to minimize their dependencies and adapt to their environment. Therefore, it is essential to explore the selection process in the resource dependency theory with its possible impact on organizations. According to resource dependency, the meaning of selection can be considered synonymous with organizational ineffectiveness and intense dependencies on other organizations. Moreover, power is a practical element for the increase or decrease of dependency and the selection process. Resource dependency theory is the most comprehensive theory combining internal and external sources of organizational power to explain organizations' survival against environmental constraints (Davis & Cobb, 2010). In their meta-analysis, Dress and Heugens (2013) have found that a power imbalance shows mutual dependence, indicating organizational failure.

Collectively, these explanations provide support for the effectiveness of organizational power and strategies on the external environment. Resource dependence theory gives an essential role in organizations and their managerial implications in adaptation and selection in the environment.

## **Adaptation and Selection Processes**

First, each approach analyzes the relationship between the organization and environment from different perspectives. Contingency and resource dependency theories analyze the relationship between an organization and its environment from an organizations' perspective. In contrast, the population ecology takes a perspective from the environment. The institutional theory analyzes this relationship from both the perspectives of the organization and the environment. The reason for contingency theory to take an organization's perspective is to adapt to its environment.

Similarly, the resource dependence theory also focuses on the organization to explain its environmental relationships. According to this viewpoint, an organizations' primary duty is to minimize its dependencies on other organizations and resources. It assumes that organizations and actors can change dependency structures when they interact with their environment.

The population ecology analyzes this relationship from an environmental perspective because the structural inertia restricts the ability of organizations to adapt to their environments. In the context of institutional theory, institutional pressures shape organizations and their environment. Furthermore, organizations must legitimize their actions against institutional pressures. Legitimacy provides a balance between the organizations and their environment. However, recent research also showed that being legitimate is not the only way to adapt to an environment (Lawrence et al., 2011; David et al., 2013; Bitektine & Haack, 2015). Institutional work and institutional entrepreneurs can respond to institutional pressures. As a result, we can assume that there is an interactive relationship between organizations and their environment. Both organizations and the environment have the power to influence each other.

As stated before, adaptation and selection are two different processes of the same evolutionary process and complement each other. In this process, the selected ones are the adapted ones. In other words, the organizations adapted to their environment can be seen as the selected ones. We can extend our understanding of organizations, their relationship with the environment, and organizations' dynamics. We want to analyze the main assumptions of these theories to extend our understanding of organizations and their dynamics relationships with the environment.

If we start with population ecology, natural selection can explain the fundamental organizational dynamics. Natural selection refers to how heritable traits

become more common in successive generations of a population of reproducing organisms. At the same time, unfavorable heritable traits become less common.<sup>(1)</sup> Natural selection operates to produce individuals to their environment.<sup>(2)</sup> However, natural selection does not act on individuals; it acts on populations.

Individual organisms cannot become better adapted to their environment as they cannot change their genes. Sometimes organizations are considered as the analogs of individuals (or any other species). However, individuals cannot decide which traits to inherit. Hence, their decisions do not play any role in the adaptation process. The population ecology assumes that organizations cannot decide which 'traits' to inherit and which ones to change. However, this analogy does not consider that organizations can make decisions.

Hannan and Freeman (1977) have filled this gap, considering internal and external constraints that lead to pressures of inertia. However, these constraints are not strong enough to be the analogs of the forces that prevent an individual's adaptation. There can be other kinds of variables that we should consider in environmental change that make it possible or more straightforward for the organization to adapt. One of these variables can be the characteristics of environmental processes. In some cases, characteristics of environmental change may let a manager (on behalf of the organization) predict the environmental change or predict ways of organizational adaptation to the new environmental conditions. It does not support claims of contingency theory about complete adaptation. However, we think it is also essential to consider the characteristics of environmental processes before predicting that the organization's survival is a matter of chance.

In their paper, Hannan and Freeman emphasized that three things must be known to answer questions about the applicability of selection theories to organizations' populations (1984: 151). The first one is the temporal pattern of changes in critical environments. Are typical changes small or large, regular or irregular, rapid or slow? The second issue is the speed of learning mechanisms. How long does it take to obtain, process, and evaluate information on critical environments? Finally, the third issue is the responsiveness of the structure to designed changes. How quickly can an organization be reorganized? These three questions indicate that Hannan and Freeman have recognized the essence of the main criticisms against the population ecology. They emphasize that their claims do not necessarily mean

(1) <https://www.tulane.edu/~h0Ward/BrLg/Perception.html>

(2) <https://answers.yahoo.com/question/index?qid=20090803170151AAsaTwO&gucounter=1>



that organizations never change; however, one should consider these three issues before supporting the adaptation process. In other words, they claim that organizations respond relatively slowly to the occurrence of threats and opportunities in their environments. Therefore, inertia is the leading force for population ecology to take into account. However, Hannan and Freeman (1984) emphasized these three questions. According to them, organizations can adapt if the environmental change is slow or regular enough, allowing them to learn ways to adapt. In this sense, they do not exclude the possibility of adaptation. However, they think that it is still the selection working on organizations' populations deciding which organizations will survive. Occasionally outcomes and intentions may collide, but this results from events' serendipity rather than the outcome of planned or intentional actions. On the other hand, we think it is worth exploring how conditions and environmental processes it is possible for an organization to adapt.

Secondly, related to the previous point, population ecology does not consider that managers can change or influence the selection process. To clarify this point, we can think of the R&D, advertisement, or lobbying activities of various organizations. Through these activities, organizations influence, change, or determine the direction of environmental change. In this case, still, some organizations can be selected out (Wilbon, 2015; Hakanson & Kappen, 2016).

As examples, we can consider two scenarios. Assume an organization leads most of the R&D, advertisement, or lobbying activities in a population. The other organizations assume follower roles. In this first scenario, the followers who manage to adapt to the new environment influenced by the leader would survive. The others would be selected out. Secondly, the population may act as a group to lobby together for government regulation. They may change the direction or the extent of the regulative change to make it easier for them to adapt. Carroll and Hannan (2000) have pointed out this issue. They have distinguished between exogenous and endogenous processes. Exogenous processes change organizations and organizational populations, but not vice versa (2000: 193). Whereas in endogenous processes, the organizational population comprises the primary environment for organizational activity and demography. As organizations and their populations change in endogenous processes, their environments also change (2000: 193). Even though they think of this as one of the possibilities, they claim that analyzing endogenous environmental processes brings technical difficulties (2000: 204). Most of the studies cover only exogenous environmental processes.

On the other hand, endogenous processes support, adaptation, and selection theories complement each other. Moreover, focusing on either of these processes and ignoring the other may be misleading or less explanatory than analyzing both processes to understand organizations' dynamics at the organization and population levels. In our opinion, analyzing the processes of adaptation and selection may also help us understand the driving forces to change, both at the organization and population levels.

Besides, population ecology does not analyze whether the surviving organizations remain unchanged or have mutations. In this analysis, organizations are classified as establishments, mergers, or disbanding. It can also be the result of focusing on the population level without paying attention to its dynamics. To understand which conditions, environmental processes, or types of strategies help organizations survive, analyzing whether surviving organizations remain unchanged or have mutations. If there are mutations, what kind of adaptive changes have taken place.

Also, population ecology does not tell us anything about the organizations' fate that have tried to change. When population ecologists analyze an industry, they analyze birth and death rates in a population. If an organization survives, population ecology explains its survival by "chance." However, an analysis at the organizational level, efforts to adapt and survive or death would clarify their relationship. This phenomenon would provide us more clues about which kinds of environmental processes an organization can adapt. In what possible ways or which kinds of processes it is not possible for adaptation.

If we look at contingency theory as one of the advocators of adaptation, its most prominent deficiency is its silence about the managers' information source for the organization's adaptation. In other words, it assumes that the managers obtain the required information for finding the best way to change their organizations' structure and adapt to its environment. However, contingency theory does not consider the uncertainty of the environment or any imperfections/costs about reaching information. We think this can be assumed as strong as the assumption of population ecology about structural inertia. In this sense, it is essential to analyze different environmental processes, populations, industries, and characteristics to understand how organizations can get information, predict and adapt, or not get selected.

Another deficiency of the contingency theory is related to its rationality assumption. According to contingency theory, managers do not have any difficulty making rational decisions for their organizations when facing environmental changes. Even if we assume managers can reach the necessary information they need,

we may still doubt they can rationally process it. In this sense, contingency theory never accounts for irrational behavior. Also, it does not take into account that if the manager is risk-averse or risk-tolerant. If the manager is highly risk-averse, he may be reluctant to take risks even if he anticipates a strategy to adapt.

Like the population ecology theory and the contingency theory, resource dependence also has deficiencies in explaining the organizational impacts of the adaptation and the selection. According to this theory, if organizations manage their critical resources and minimize their dependencies in their field of activity, they adapt to their environment. In the adaptation process of the environment, power is a core element that also underlies organizational strategies and coalitions to manage the environment and related uncertainties. At this point, the resource dependency theory explains power relationships in a dyadic cycle (Brass, 2002). However, adaptation processes include complex relationships and more than dyadic benefits at the internal and external environments.

The resource dependency theory also receives frequent criticism about the structure of the environment that organizations try to adapt. The resource dependence perspective explains an environment within its boundaries of power relations, coalitions, mutual dependencies, and organizational strategies like mergers and acquisitions. However, it does not consider some environmental aspects that are socially constructed (Tolbert & Zucker, 1996). This deficiency is due to its agency perspective. This nature caused ignoring the effect of the environment in the relationship between the environment and the organization.

To sum up, with this deficiency of resource dependence, we think that the adaptation process can be analyzed more holistic viewpoint. Moreover, the adaptation and selection processes can be handled with both agency and structure response. These approaches may help provide a deeper understanding of the complex relationship in the external and internal environment. Institutional theory has deficiencies in explaining the adaptation and selection in an institutional field. According to Jennings and Greenwood (2003), institutional theory has stable assumptions about the adaptation process. This orientation is similar to the primary assumption classical of economics which explains the market conditions with the invisible hand (Smith, 1869). The institutional theory replaces the invisible hand with institutional pressures to controlling the adaptation process (Davidsson et al., 2006). However, the structure of an environment may have regular and ongoing changes, making dynamic assumptions essential to explain the adaptation and selection process.

Thus, each of these approaches has consistent logical structures. However, they also have limitations described above. Based on them, we suggest considering the

adaptation and the selection as the different aspects of the same evolutionary process, rather than focusing on either of them separately.

## Theory Development

This section focuses on discussing the theoretical apparatus of each organization theory considered in this paper. It is essential to mention that the previous points were not meant to criticize these theories notably. However, instead, they were meant to denote that adaptation and selection are simply different processes of the same evolutionary process and complement each other (Stoelhorst et al., 2006). We summarized how different theories consider the meaning of adaptation and selection with their critical concepts in Table 1. We have summarized the five criteria representing the baselines of these theories to explain adaptation and selection processes. Each criterion is somewhat subjective in its theoretical roots, but they overlap considerably in their understanding of adaptation and selection.

**Table 1.** Criteria for Describing and Evaluating Adaptation and Selection Process

	<b>Institutional Theory</b>	<b>Population Ecology</b>	<b>Resource Dependence Theory</b>	<b>Contingency Theory</b>
<b>Meaning of adaptation</b>	Legitimacy	Survive against the selection process	Manage and minimize dependency	Structural fitness to contingencies
<b>Meaning of selection</b>	Fail to gain legitimacy	Environmental change	Organizational ineffectiveness and intense dependency	Misfitting structure
<b>Key concepts</b>	Isomorphism Institutional works Institutional entrepreneurs	Structural inertia Age dependence Size dependence	Power Coalition Resource	Size Technology Strategy Environment
<b>Role of organizations</b>	Partially reactive	Inactive	Proactive	Partially reactive
<b>Meaning of environment</b>	Institutional environment	Social-economic and natural environment	Organizational environment	Located environment

Adaptation and selection are closely related to the environmental fitness in each theory. However, this conformity has included different theoretical concepts for each perspective (Table 1). For example, institutional theory focuses on the concept of legitimacy to explain the processes of adaptation and selection. At this point, adaptation refers to gaining legitimacy in the environment, and the meaning of the selection is equal to failure to comply with institutional pressures which determine the boundary of legitimacy.

Scholars who have studied adaptation and selection processes through the population ecology lens have focused on the selection process to explain adaptation dynamics. They define the selection process as the natural outcome of an environmental change. In other words, an environmental change reflects the creation and death of a population. At this point, the death and failure rates of populations provide losers of the selection process. Populations that overcome the selection process demonstrate adaptation (Baum & Spilov, 2006).

The meaning of the adaptation and selection for resource dependence theory is dependent on organizational action, which also represents an actor-oriented viewpoint. It states that organizations try to minimize and manage dependencies with strategic actions, representing adaptation. According to this perspective, intense dependency on other organizations or resources causes a decrease in organizational effectiveness, indicating the selection process of organizations.

The most distinctive assumption of contingency theory is environmental determinism, which shapes the adaptation and selection processes. This assumption indicates that environmental determinism has the power to determine which organizations survive and which organizations are selected out. From this perspective, organizations should try to fit their structure to environmental contingencies. This perspective focuses on the structural aspects of organizations to explain the adaptation and selection process. If organizational structure fits with the contextual factors, organizations can perform and survive in the environment. Otherwise, if the organizational structure does not fit its environment, organizations fail due to environmental change and uncertainty, implying the selection process.

To summarize these explanations, each viewpoint involves the adaptation and selection processes in their theoretical assumption. Moreover, these assumptions indicate that the adaptation and selection processes are not different concepts. They complement each other to explain the relationship between organizations and the environment. Therefore, it is crucial to provide a deeper understanding of each

theory's holistic view about the adaptation and selection process. From this point, key concepts and roles of organizations in these theories' can be valuable to explain the relationship between adaptation and selection.

Firstly, structural inertia, age, and size dependence are critical concepts of the population ecology perspective. According to population ecologists, structural inertia creates difficulties and damages populations due to environmental changes (Baum & Spilov, 2006). These difficulties trigger selection processes, which also affect adaptation. In these demographic processes, age and size dependence of population also has a vital role in selection. According to Hannan and Freeman (1984), the increase of age and size dependence strengthens structural inertia and decreases fluidity against changing environments. These explanations suggest that the oldest and the most significant populations can survive in changing environments and overcome selection. While organizational ecology focuses on the environment's role in the selection, institutional theory complements this explanation by emphasizing the role of organizations and actors in influencing the environment. According to the institutional theory, the concepts of isomorphism, institutional work, and institutional entrepreneurs come into prominence to explain gain legitimacy, reflecting adaptation and selection. Studies on the institutional work and institutional entrepreneurs show that collective actors and their actions on institutional fields effectively change the adaptation and selection processes (Lounsbury, 2001; Wicks, 2001; Guler et al., 2002; Lamont & Molnar, 2002).

The resource dependence theory has an actor-oriented perspective. It complements the above arguments through organizational power, coalition strategies, and organizational resource capacity to explain the adaptation and selection processes. This perspective emphasizes that organizations manage and minimize their dependencies with their power and coalition strategies. Hence, they can influence the environment. At this point, power and coalition relationships help organizations arrange their resources and make other organizations depend on them. If organizations manage their dependencies with these strategies, they increase effectiveness, and hence they can survive. The crucial concepts are organizational size (Blau, 1974), technology (Woodward, 1970; Thompson, 2003), strategy (Miles et al., 1978), and environment (Burns & Stalker, 1961). Each of these concepts provides the structural needs of organizations to be successful in the adaptation process. The size represents the number of employees in the organization. According to Blau (1974), organizational size affects structural differentiation and organizational performance in the adaptation process. As an internal concept (Woodward, 1970), technology

represents an organization's technology to deal with uncertainty and change in the adaptation process (Woodward, 1970). Another concept is the organizational strategy, which protects organizations from the misfit between structure and environment and provides insights on how to survive in changing environmental demands (Miles et al., 1978). The environment is the third concept we have considered critical in contingency theory to explain adaptation and selection. According to contingency scholars, the environment represents the context of activities where organizations supply their inputs and create relationships with others, such as its shareholders, regulatory authorities, and customers. At this point, the environment has a deterministic power on organizations, and this power identifies rules of adaptation. According to Burns and Stalker (1961), environmental conditions (uncertainty or stability) influence organizational structure and organizational fitness to the environment.

Furthermore, these scholars define types of organizational structures as mechanic and organic. Mechanic organizations are effective in stable environments, whereas organic organizations are effective under uncertainty. If we take these two organizational structures, we can see the structural effect of the adaptation process's environment.

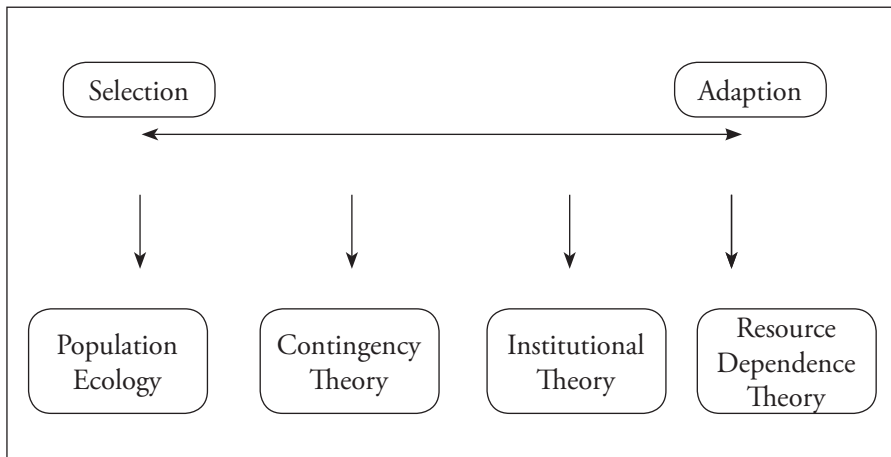
Other criteria that we gave place in Table 1 include organizations' roles and environments. These two criteria complement each other in the adaptation and selection process. Environment determines the context of the adaptation and selection in each theory. In the population ecology, the environment represents the social-economic and natural context that involves populations. According to ecologists, a deterministic environment does not give actors or organizations a role in the selection process. For this reason, the organizational role in the selection process is inactive. The resource dependence theory explains the environment according to the organizational context.

Moreover, the organizational environment provides actors and organizations a proactive role, allowing them to shape and manage their environment. The contingency approach also gives organizations the partially reactive role to shape the adaptation process. In addition to that, organizations present their partially reactive role in a located environment. The located environment represents organizational networks which necessary to survive.

According to institutional theory, the environment represents the institutional context that includes socially constructed values, norms, and institutions. In an institutional environment, organizations have a partially reactive role which means

organizations are not entirely passive actors in the adaptation and selection processes. However, they also do not have an omnipotent active role. The institutional theory’s evolution posits that institutional environment and collective powers affect each other; they take interactive roles in adaptation and selection. In other words, organizations and actors also indirectly shape the adaptation and selection processes. However, this effect is not limitless, like resource dependency and contingency theories, which are not as restricted as the population ecology. The institutional theory provides more opportunity for institutions to regulate environmental relations than actors and organizations in the adaptation and selection processes.

Together these explanations indicate that there is a strong relationship between adaptation and selection processes in each theory. All theoretical assumptions and concepts integrate adaptation and selection processes rather than separating them. The main differences of each theory about adaptation and selection explanations originate from their focus. Figure 1 presents the main points of each theory in the adaptation and selection process.



**Figure 1.** The Focus of Theories Regarding Selection and Adaptation

The population ecology builds its theoretical assumption on the selection process. This orientation leaves the adaptation process in shadow. It also causes a divided understanding of the selection and adaptation processes. Contingency and institutional theories give place both to adaptation and selection processes in their explanations. However, contingency theory is closer to the selection process in the



continuum because of its deterministic perspective. Institutional theory is closer to adaptation when explaining environmental relationships because it integrates deterministic and agency perspectives.

The adaptation process shows itself in almost every explanation of the resource dependence theory. To provide a deeper understanding of the relationships between environment and organizations, we need to consider that adaptation and selection processes are not separate concepts. They are complementary concepts, providing us a holistic perspective.

## Conclusion

This article aims to compare organizational adaptation and selection processes by reflecting on population ecology, institutional, resource dependence, and contingency theories. This comparison allows us to see that adaptation and selection processes as complementary processes of the same evolutionary process. We argue that an integrated view can better describe the evolutionary phenomena than explanations based on either of these theories at organizational and population levels. Accumulation of knowledge from different industries and different environmental processes may allow us to determine which environmental processes and conditions organizations may adapt by changing their structures. Also, we think different industries and environments may have some essential characteristics to consider when deciding which theory to apply. Of course, this brings us to an old methodological debate between pluralists and monists. We are looking for a scientific method to explain different phenomena or think that a single approach is insufficient. In our opinion, a pluralist approach would help us to improve our understanding of the dynamics of organizations from multiple perspectives instead of trying to explain all phenomena with a single approach.

Moreover, we believe that the distance between adaptation and selection processes can be decreased when explaining the relation between the environment and organizations. For example, population ecology directly focuses on the selection process when explaining the relationship between environment and population. However, limited research gives place to the adaptation process. We still do not know how populations adapt to their environment when they overcome the pressures of the selection process. Similarly, contingency scholars explain the adaptation process with essential variables such as organizational size, technology, strategy, and environment. These variables can explain only a tiny part of the adaptation process.

Thus, it can be challenging to explain complex and changing environments without information about the selection process. If we discuss the resource dependence perspective, we can see only the adaptation process in its assumption. However, the selection process can give us new insight into understanding intense and mutual dependencies among organizations and how they affect environmental relationships.

According to institutional theory, legitimacy is a fundamental factor in explaining adaptation to the institutional environment. This explanation indicates that legitimacy is more related to the adaptation process. However, the need for legitimacy not only affects organizations but also affects institutional works and entrepreneurs. An integrated perspective that includes adaptation and selection provides more information about the relationship between actors, institutional works, and legitimacy in the institutional field. The integrated perspective of selection and adaptation and pluralist approach may provide more insights to explain the relationship between organizations and the environment.

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