Much of the diffusion literature in international relations, international political economy, and comparative public policy focuses on explaining patterns of convergence among states, international organizations, and transnational organizations. This literature suggests that full or complete convergence is not a necessary or even likely outcome of diffusion processes. However, as of yet, findings of varying degrees of convergence remain largely context-specific and a more general and systematic review of the mechanisms explaining “how much” convergence occurs is still missing. To address this gap, this article offers a state-of-the-art review of studies describing and explaining the phenomenon. On that basis, we trace the occurrence of varying degrees of convergence back to differences in (i) the nature of the underlying diffusion model; (ii) the specificity of the diffusion item; (iii) the type of diffusion mechanism in operation; and (iv) the institutional context at the point of adoption.

In the social sciences, diffusion has been defined as any process in which the prior adoption of a trait or practice alters the probability of adoption for remaining nonadopters (Strang, 1991: 335). In a more comprehensive manner, Solingen (2012: 632) identifies the (i) stimulus; (ii) medium; (iii) social agents; and (iv) outcomes as the four main elements of diffusion processes. So far, much of the diffusion literature in International Relations (IR) and closely related disciplines has focused on the outcome dimension of diffusion, explaining patterns of convergence or isomorphism (e.g. Jakobi, 2012, Marcussen, 2005, Simmons et al., 2008). In fact, the notion of increasing similarities between prior and later adopters is inherent to the concept of diffusion as it is frequently used in the literature (Elkins and Simmons, 2005: 2, Ovodenko and Keohane, 2012: 524).

However, numerous studies suggest that full convergence is not a necessary or even likely outcome of diffusion. In this regard, Börzel and Risse (2011), for example, show how diffusion of the European Union (EU) model has led to

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1 We would like to thank Robert Falkner, Etel Solingen, Tanja Börzel, Arthur Stein, Detlef Jahn, and Ben Goldsmith as well as the three anonymous reviewers for comments and feedback on earlier drafts of this article.

2 Convergence or isomorphism can be defined as any increase in the similarity between one or more institutional characteristics across a given set of political jurisdictions (see section on convergence for details).
significant variation in institutional and behavioral outcomes among adopters. In a similar way, the works of Falkner and Gupta (2009) and Radaelli (2005) point to diffusion processes that led to only limited degrees of convergence. These and other studies show that, as they diffuse, norms, ideas, and practices often change in form and content.  

As of yet, explanations of why and when we can expect more or less convergence remain incomplete and scattered across the literature. This is a shortcoming as the issue of varying degrees of convergence is not a trivial one. A better understanding of when diffusion leads to more or less convergence can teach us a great deal about why institutions are designed in a certain way. In addition, we can learn why they change in the way they do. To shed some light on the issue, this article conduct a state-of-the-art review of works describing and explaining the phenomenon. Against this background, we trace the occurrence of varying degrees of convergence back to differences in (i) the nature of the underlying diffusion model; (ii) the specificity of the diffusion item; (iii) the type of diffusion mechanism in operation; and (iv) the institutional context at the point of adoption.

The article proceeds in four steps. The next section provides a brief discussion of the concept of convergence. Following this, we identify the sources of transformation in the diffusion process. To do so, we provide a review of studies in IR and closely related disciplines that describe why and how practices vary as they diffuse. In the final section, we draw on the broader diffusion literature to detail the underlying mechanisms and to derive a set of general assumptions about when to expect either more or less convergence.

### The Concept of Convergence

According to Knill (2005: 768), convergence can be defined as any increase in the similarity between one or more institutional characteristics across a given set of political jurisdictions. Conceptually, the study of convergence is closely related to the sociology literature on organizational isomorphism (DiMaggio and Powell, 1991). The primary difference between convergence and isomorphism is their area of empirical focus. Students of organizational isomorphism focus on increasing similarities between organizations, whereas the convergence literature’s main emphasis is on national policy characteristics. Here, our focus is on the convergence literature. Notably, we focus on increasing similarities between the source model and the point of adoption, as well as increasing similarities among the adopting population. These are what Knill (2005: 769) calls δ- and σ- convergence, respectively.  

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3 Another example is Rose (1991) who categorizes policy diffusion processes as resulting in copying, emulation, hybridization, synthesis or merely inspiration.

4 Besides σ- and δ-convergence, Knill (2005: 769) furthermore distinguishes between β- and γ-convergence: "First, β-convergence occurs when laggard countries catch up with leader countries over time, implying, for instance, that the former strengthen their regulatory standards more quickly"
One of the central arguments throughout the diffusion literature is that convergence is often not the result of independent responses to similar conditions (e.g., everyone taking out an umbrella when it rains). In this vein, Simmons and Elkins (2005) argue that in many cases, observations of increased similarities among political jurisdictions are caused by processes of diffusion. For example, Simmons et al. (2006) observe a global trend of convergence towards political and economic liberalization and identify four categories of diffusion mechanisms (coercion, competition, learning, and emulation) as possible explanations. However, diffusion processes often do not result in complete convergence. Instead, many studies show that diffusion outcomes vary.

To establish “how much” convergence has occurred, scholars have turned to the source model, describing its core characteristics. This makes it possible to determine the level of convergence through comparing the adopted version(s) with the initial source (cf. Weyland, 2006). In this regard, a high level of convergence entails adopters deploying a very similar design to that of the source model. On the other hand, lower levels of convergence occur when even the source model’s core characteristics are only partially adopted.

This leaves an important question. In the case of very low levels of convergence, when the fundamental components are not adopted, how can we know that diffusion has occurred at all? Diffusion is a causal process in which a diffusion mechanism transmits a diffusion item from a point of origin to a point of adoption. These processes leave observable “traces” (e.g., exchanges of information between policymakers) which researchers can examine in order to establish whether diffusion has occurred or not. Sometimes, they will find that diffusion processes have been prevented or interrupted through so called “firewalls” or a decision to reject a policy, norm or practice. In these cases, we talk about non-diffusion or failed diffusion (Archaya, 2004, Solingen, 2012).

**Varying Degrees of Convergence: A Review of Literature**

Numerous studies show how practices vary as they diffuse and how this leads to more or less, rather than complete, convergence amongst states, international organizations, and transnational organizations. To further illustrate the phenomenon, this section briefly summarizes several examples from IR, international political economy (IPE) and comparative public policy (CPP) literature.

In their study on the limits of regulatory convergence, Falkner and Gupta (2009) asked why key developing countries have adopted divergent policies on genetically modified organisms (GMOs). They describe how the GMO policy field is characterized by two competing models, the EU precautionary approach and United States’ (US) sound science approach. However, instead of converging towards one of

"and fundamentally than the latter. Second, $\gamma$-convergence is measured by changes of country rankings with respect to a certain policy."
these nodes, Mexico, South Africa, and China have combined elements of the two models in distinct ways, giving rise to regulatory diversity amongst them. Furthermore, Falkner and Gupta point to the role of domestic institutions that they describe as “filters” through which external practices pass.

Yeo and Painter (2011) examine what they call the “transmutation” of a global model of telecom regulation. By 2002, the core of the model, which centers on privatization and independent oversight, had been diffused to approximately 120 states (Levi-Faur, 2005). Among the adopters were China and Vietnam. However, differing from the global model, China’s and Vietnam’s telecom sectors do not feature fully privatized regulatory bodies with independent oversight. Instead, the previously state-owned telecom companies have been “corporatized” in China and “equitized” in Vietnam. Their transformation into joint stock companies occurred as Chinese and Vietnamese policymakers studied the global telecom regulation model and saw that elements of it could fit their local context. As a result, Chinese and Vietnamese policymakers adapted the telecom regulatory model to help them reduce their financial burdens without relinquishing too much managerial control over the sector.

In his work, Radaelli (2005) examines the diffusion of the American practice of regulatory impact assessment (RIA) in the EU. He establishes that RIA is a program for “better regulation” and “good regulatory governance.” However, Radaelli finds that, among other things, different “institutional riverbeds” have led to little convergence across EU member states. For instance, he illustrates how RIA took varying forms in the United Kingdom (UK) and the Netherlands in the 1990s. In the UK, the Blair government used RIA as a tool to curb the influence of business and to arrive at a more balanced approach to the assessment of a wide spectrum of costs and benefits. In contrast, in the Netherlands, RIA was the solution to a “corporatist triangle” of policymakers, employers organizations, and unions that had long dominated the policy-making process. In other cases, Radaelli’s analysis suggests that RIA policies have been adopted in paper, but not in practice.

In his in-depth case study of the Association of Southeast Asian Nations (ASEAN), Acharya (2004) finds evidence for the localization of external norms, rather than wholesale acceptance or rejection. According to Acharya, norm localization describes a process in which adopters reinterpret an external norm, in order to increase its “fitness” with prevailing local norms. In the case of ASEAN, he shows how the European “common security” norm was reconstituted as “cooperative security.” He also describes how ASEAN’s non-interference norm – which had guided its operations since its founding during the Cold War era – was modified into “constructive intervention” as a response to the introduction of prevailing transnational norms. The acceptance of modified forms of both norms, as argued by Acharya, followed a process of congruence-building or localization in order to make the norms fit the ASEAN context.

A last example comes from the study of transnational organizations. In a working paper, Auld et al. (2007) examine the diffusion of non-state market driven (NSMD) governance. With the Forest Stewardship Council (FSC), NSMD
governance first emerged in the forestry sector in the early 1990s. In the following years, the model then spread rapidly and widely across industry sectors. Today, FSC-like initiatives operate in industry sectors as diverse as aquaculture, fishery, mining, palm oil, soy, and sugarcane. However, this process did not result in a duplication of the FSC model. Instead, pointing to the role of learning and to industry structures, Auld et al. describe how the model has been transformed in the diffusion process, giving rise to variation in key dimensions of organizational design. In a similar vein, Gulbrandsen (2010: 112-133) examines the “spill over” of the NSMD model from the forestry to the fishery industry. Similar to Auld et al., Gulbrandsen’s findings suggest that they only imitated some of the FSC’s features while filtering out others.

Toward an Explanatory Framework

The above review provides evidence for the pervasiveness and relevance of the phenomenon under investigation. Typically, what is adopted as a result of diffusion processes is not an exact copy of the original practice. Instead, as policies, norms, and organizational models diffuse, they are transformed, leading to less than full convergence. However, as of yet, explanations of why practices vary as they diffuse have not been systematically drawn together. Studies dealing with the question of varying levels of convergence mostly focus on a single mechanism and a more comprehensive framework is still missing.

In order to address this gap, this section draws on the broader diffusion literature to derive a set of general assumptions about when to expect more or less convergence. The most common causes of varying levels of convergence identified in these studies were (i) the nature of the underlying diffusion model; (ii) the specificity of the diffusion item; (iii) the type of diffusion mechanism in operation; and (iv) the institutional context at the point of adoption (see Table 1). While we are aware of the possibility of interactions between mechanisms, our focus here is on “main effects” (i.e. the bivariate relationships between the independent and dependent variables). We believe that first detailing these main effects is important in order to be able to understand more complex causal patterns at a later stage.

<table>
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<tr>
<th>Literature</th>
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<td>Policies on GMO</td>
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Table 1. Variance in the Diffusion Process: Sources and Empirical Areas
**Convergence More or Less**

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**Diffusion Models**

Standard diffusion models assume the existence of a single point of origin or source. March (1999: 137) calls this the broadcasting mode of diffusion. In this mode, a norm, idea or practice is transmitted from a central source to a population of potential adopters. For example, diffusion within social movements often follows this pattern. In this regard, Spilerman (1970) and Oberschall (1989) find that protests and social movement strategies spread from an initial point to other places through activist interpersonal networks and the media. Also, imitation processes within organizational fields take the centralized structure of the broadcasting model. In this regard, neoinstitutional theory predicts that, in order to increase their legitimacy, imitators target prestigious, central actors (DiMaggio and Powell, 1991, Meyer and Rowan, 1977). In a similar way, the IR literature points to processes of vertical diffusion through powerful actors; the spread of liberal market norms through the International Monetary Fund and the World Bank is an often cited case (Simmons *et al.*, 2008: 10-17). Generally, single source diffusion processes are believed to lead to a homogenization of the adopting population (Hedmo, *et al.*, 2005: 196).

However, not all diffusion processes resemble the broadcasting model. March (1999: 199) also recognizes a chain mode of diffusion, where innovation is transmitted from one adopter to the next and so on. This means that late adopters have no direct contact with the initial source and may even be ignorant of it. If the underlying diffusion model is best described by the chain mode of diffusion, then variation between early and late adopters may occur. The children’s game, Chinese Whispers, illustrates why this is the case. In Chinese Whispers, one player whispers a message to another, which is passed through a line of people until the last player announces the message to the entire group. Errors and deliberate modification may occur at each retelling, and then accumulate across the string of retellings. As a result,
the statement announced by the last player usually differs significantly from the one uttered by the first.

Both the broadcasting and chain models of diffusion assume the existence of a single (initial) source. However, diffusion processes can also involve multiple sources. For example, the literature on innovation diffusion suggests that new technologies are often not developed at a single point of innovation and then passed on to a population of potential adopters. Instead, Biggs (1990) argues that these processes are better described as a multiple-source diffusion model. For the field of agricultural research, he shows how various public and private actors are involved in the development and diffusion of new technologies. Whereas single-source diffusion models are likely to lead to a homogenization of the adopting population, multiple source models have been found to create room for variation. Two studies from the field of IR illustrate this point. In a recent article on patterns of policy convergence in the international system, Drezner (2005) shows how the existence of two (diverse) sources can lead to a polarization of the adopting population as adopters converge toward one of the two nodes. Falkner’s and Gupta’s (2009) work on GMO policies, as discussed on page 5, also demonstrates how the existence of multiple, diverse sources creates opportunities for adopters to combine models in various ways, which can then give rise to diversity among them.

Summing up the discussion, we expect to see “more” convergence when the diffusion process has a single, central source. In contrast, we believe that chain mode diffusion and multiple-source diffusion models are conducive to “less” convergence. In particular, multiple-source diffusion models allow for the possibility of hybridization, i.e. the combination of elements from more than one source.

**Diffusion Items**

Not all diffusion items share the same characteristics. Rather, they differ in their level of specificity, ranging from specific policy formulae to more general styles or ideas. More precisely, scholars have defined the main dimensions of the diffusion item – in order of specificity – as the overarching ideas, the instruments, and the precise settings (Hall, 1993, Lenschow, et al., 2005). Lenshow et al. (2005) provide examples of the three policy dimensions for the field of environmental governance. In this application of the terms, the overarching diffusion idea is the concept of human stewardship over nature, and the diffusion instruments are governance techniques such as direct regulation, fiscal instruments or voluntary agreements. The most specific dimensions, the precise settings, are the levels of emission standards or tax rates (Lenschow et al., 2005: 803). In a similar way, Weyland (2006: 18) posits that principles are "general and vague on details" whereas a model is a "concrete, specific blueprint." He suggests that the Bismarckian welfare state and the Chilean-style pension system are examples of models. In contrast, examples of more loosely defined principles include the notion of capital account liberalization or central bank independence (Weyland, 2006: 17).
Levels of specificity have been causally linked to expectations about varying degrees of convergence in diffusion outcomes. If the level of specificity is low, then the expectation is that there will be variation in the way in which diffusion items translate into concrete policy language. The reason for this is that the low level of specificity of principles and ideas allows room for interpretation. For example, Weyland (2006) describes differences in the diffusion of health and pension system reforms in Latin America. In the case of the diffusion of the Chilean pension system, Latin American countries instituted the “core” of the Chilean model. In contrast, although some similarities could be observed, national healthcare reforms were found to have less coherence across national policies. Weyland traces the different degrees of convergence back to the fact that Chile provided a clear blueprint for pension reform, whereas no model of similar specificity existed for healthcare reforms.

Following from this, we expect lower degrees of convergence when the specificity of the diffusion item is low. In contrast, if the diffusion item has a high level of specificity, then duplication of the source model becomes more likely. That is because adopters have more precise information about what to reproduce and how.

**Diffusion Mechanisms**

Competition, coercion, emulation, and learning have been identified as the principal mechanisms of diffusion across states, international organizations, and transnational organizations (Simmons et al., 2008). They are employed to specify how, and explain why, policies diffuse. There are a number of studies that explicitly examine the causal significance of individual diffusion mechanisms. Delineating mechanisms in this way has contributed to a more nuanced understanding of diffusion (see Solingen, 2012 for examples). However, scholars have as yet only implicitly related the different mechanisms to varying degrees of convergence across adopters. This section aims to address this gap.

The competition and coercion mechanisms describe unsolicited external forces that limit actors’ choices. Diffusion via coercion refers to a process in which powerful actors impose institutional characteristics or policy formulae on others. For DiMaggio and Powell (1991: 67) “coercive isomorphism results from both formal and informal pressures exerted on organizations by other organizations upon which they are dependent” (DiMaggio and Powell, 1991: 67). In the field of IR, it is powerful states or international organizations that impose their policies and norms on others. In a similar way, the competition mechanism focuses on how competitive pressures constrain the options of policymakers and organizational managers. In this context, Simmons and Elkins (2004) argue that the adoption of capital account liberalization policies in one state creates pressures for its peers to adopt similar policies (and this pressure intensifies as the number of peers that liberalize their capital accounts increases).

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5 In the literature, a distinction is often made between more direct and indirect, as well as hard and soft, forms of coercive diffusion (Dolowitz and Marsh, 2001: 13-17, Simmons, et al., 2008: 790-791).
Depending on their strength, coercive and competitive pressures are expected to lead to high degrees of convergence amongst adopters. States or organizations become more similar as they adopt the policy or practice promulgated by a powerful actor. In the case of competition, states converge toward the model that appears to enjoy the competitive advantage, for example, in attracting and retaining capital. However, some caveats about the universal nature of this pressure are in order. The globalization hypothesis has been refuted by studies showing that economic competition has not made states converge on a singular model (Hall and Soskice, 2001) or triggered a global race to the bottom (Mosley, 2005). In a similar vein, Weyland (2006), Swank (2008) and others have shown that states respond differently to competitive and coercive pressures. These analyses point to the mediating effect of domestic institutional contexts, which will be discussed in the fourth section.

The emulation (also called imitation) mechanism is also conducive to high levels of convergence. Emulation describes a process in which actors try to simply copy the policies and features of successful others. Through imitation, they hope to gain legitimacy and enhance their survival prospects in uncertain environments (DiMaggio and Powell, 1991). However, depending upon the level of information available, emulation may involve an unintentional adaption away from the source model. Ordanini et al. (2008) note that, typically, the imitator does not possess the “blueprints” of what she or he is trying to imitate. Therefore, emulation is almost always an imperfect duplication of the original. Against this background, we expect that the accuracy of the emulation, and therefore the degree of convergence, depends on the information available to the emulator.

Whereas the coercion, competition, and emulation mechanisms are conducive to more convergence, we argue that learning facilitates less convergence. In both learning and emulation, organizations and states turn toward their peers with the intention of adopting some of their features. But, in contrast to emulation, learning implies a process of reflection on the part of the adopter (Meseguer and Gilardi, 2009: 17-19). When learning is the primary diffusion mechanism, the adopting entity carefully considers the pros and cons of a policy, strategy or design feature. Lessons from the experience of others are drawn and, if considered positive, a decision for adoption is made. However, in doing so, learners may find that some aspects of the source model(s) are suboptimal for their local environment and make adaptions accordingly. Also, they may combine the lessons learned from multiple policy experiments and thus synthesize new practices.

In sum, if competition and coercion are the primary diffusion mechanisms, then we expect relatively high degrees of convergence. The same is true for emulation. However, the degree of convergence stemming from emulation will depend on the quality of source information that is available to the emulator. Finally, if learning is the primary diffusion mechanism we expect a transformation of the models and therefore lower degrees of convergence.
The adoption of the diffusion item marks the end of the diffusion process. In the broader diffusion literature, this process is often described in a somewhat mechanistic way in which potential adopters make a decision to either accept or reject a diffusion item (Rogers, 1995: 364). However, scholars have criticized this “black box” treatment of the adoption process (Yeo and Painter, 2011: 379). Instead, they see adoption as a dynamic process in which the medium, or context at the point of adoption, shapes the way in which external practices are received and implemented. In this regard, scholars point to the mediating effect of prevailing local norms, political institutions, and economic structures on diffusion outcomes.

In his work on international norm diffusion, Checkel (1999: 87) argues that cultural matches – i.e. a high degree of congruence between external norms and local culture – facilitate the diffusion and thus adoption of international norms. However, in the international system and elsewhere, perfect matches are rare. Often, external practices are at least partially incompatible with prevailing local norms. Depending on their degree of difference, such mismatches cause frictions and complicate the adoption process. In some cases, this may even lead to the rejection of the external norm altogether (Acharya, 2004). But: norms, ideas, and practices are not set in stone; they can be reframed, reinterpreted, and modified in order to increase their fit with a particular local environment. The diffusion literature provides several examples of norm fitting, or what Acharya refers to as processes of norm localization. In this vein, Powell et al. (2005: 254) give the example of the British postal system. The fundamental design of the model was adopted in the 19th century by both Japan and India. However, one element of the model – the British practice of having women in charge of smaller branch offices – was viewed as inappropriate and rejected by both countries, resulting in less than full convergence.

In addition to the local normative context, political institutions (e.g. electoral rules, number of veto players, etc.) and economic structures function as filters through which external practices have to pass. In this regard, Radelli (2005: 933-939) argues that differences in the setup of political institutions leads to variability of who is “in charge” of policy implementation across countries, which affects how policies are implemented. On a similar note, Lenshow et al. (2005) advance a diffusion framework that stresses the importance of economic structures. Their empirical work suggests that the level of economic development impacts how much environmental policies converge. Swank (2008), also alluding to the mediating role of economic structures, found that American neoliberal tax policies were adopted differently as a result of whether economic systems are best characterized as liberal or coordinated.

Given the above discussion, we can now hypothesize about the relationship between the local context and the occurrence of more or less convergence. In all three areas of the local context – normative context, formal institutions, and economic structures - we expect transformation of the diffusion item to occur in line with the degree of similarity/difference between the point of origin and the point of adoption. In other words, the greater the differences, the more likely adaptation becomes and, as
a result, the greater probability that there will be low degrees of convergence. Table 2, below, provides an overview of the different mechanisms discussed in this section.

**Table 2. Explaining Degrees of Convergence**

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<thead>
<tr>
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<th>Less Convergence</th>
<th>More Convergence</th>
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<tbody>
<tr>
<td>Diffusion model</td>
<td>Multiple source, chain mode diffusion</td>
<td>Single source</td>
</tr>
<tr>
<td>Diffusion item</td>
<td>Low specificity</td>
<td>High specificity</td>
</tr>
<tr>
<td>Diffusion mechanism</td>
<td>Learning</td>
<td>Imitation, competition, (hard) coercion</td>
</tr>
<tr>
<td>Institutional context at the point of adoption</td>
<td>Different</td>
<td>Similar</td>
</tr>
</tbody>
</table>

**Conclusion**

With this article, we respond to calls in the literature which demand research that “enable[s] discrimination among grades of diffusion and resulting equilibria” (Solingen, 2012, 640). So far, one of the central aims of the diffusion literature has been to explain why states and organizations become more similar (i.e. converge) over time. Convergence, however, is not a “black or white” phenomenon with full and non-convergence as the only possible outcomes. To the contrary, many studies have shown that there is often variation in the ways in which external practices are received. In some cases, we observe close to full convergence, but more frequently convergence remains limited (to varying degrees).

It is this variance and its causes that have been the focus of this article. In an attempt to more systematically address the question of why practices vary as they diffuse, we reviewed the broader diffusion literature. Based upon this review, we developed a framework that analyzes a given diffusion sequence along four dimensions: (i) the nature of the underlying diffusion model; (ii) the specificity of the diffusion item; (iii) the type of diffusion mechanism in operation; and (iv) the institutional context at the point of adoption. On that foundation, we offered a set of general assumptions about when to expect more or less convergence.
Convergence More or Less

References


Convergence More or Less


