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Development of the legitimacy threshold scale

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ABSTRACT

Entrepreneurship literature supports the contention that legitimacy attainment facilitates favorable judgments from key stakeholders regarding the acceptability, appropriateness, and worthiness of entrepreneurs and their efforts. Theorists and empirical researchers regard these favorable judgments tied to legitimacy as important determinants of the decisions of key stakeholders as they weigh whether or not to buy from, partner with, and invest in the efforts of new venture leaders. Although legitimacy attainment is a milestone that emerging venture leaders strive to reach, researchers have not developed a measure that examines whether a firm is operating pre-legitimacy attainment or post-legitimacy attainment, based on the perceptions of new venture leaders. Accordingly, we develop the legitimacy threshold scale (LTS) that will facilitate the understanding and assessment of activities performed pre- and post-legitimacy in new ventures. The scale is a measurement tool that entrepreneurs and researchers alike are able to use to assess which side of the legitimacy threshold entrepreneurial ventures are operating on and thereby aids in new venture categorization and management.

Introduction

Entrepreneurship researchers agree the ability of an emerging firm to achieve legitimacy is critical for the survival and growth of the venture (e.g., Delmar & Shane, 2004; Tornikoski & Newbert, 2007). Legitimacy, from an organizational point of view, refers to "…the degree of cultural support for an organization—the extent to which the array of established cultural accounts provide explanations for its existence, functioning, and jurisdiction" (Meyer & Scott 1983, p. 201). In the emerging venture context, legitimacy fosters, "…a social judgment of acceptance, appropriateness, and desirability, [that] enables organizations to access other resources needed to survive and grow" (Zimmerman & Zeitz, 2002, p. 414).

Overall, legitimacy attainment is a milestone needing to be reached if emerging ventures are to cross into phases of organizational development where capital, employees, and customers are accessible (Aldrich & Fiol, 1994; Meyer & Rowan, 1977; Zucker, 1987). Put differently, the attainment of legitimacy, in its simplest and most basic form, is instrumental in predicting whether or not a new venture is likely to remain viable (Rutherford & Buller, 2007; Zimmerman & Zeitz, 2002). Therefore, the ability to detect and measure an approximate point in time when legitimacy is attained is of paramount importance for both entrepreneurship researchers and practicing entrepreneurs.

No empirical study has been conducted to aid the effort to better understand the salient activities that take place before and after legitimacy attainment based on the assessments of entrepreneurs and their teams – activities that may be very important signals to entrepreneurs as well as stakeholders that the emerging venture is or is not legitimate. The crux of the issue is legitimacy has no assignable financial value, and cannot be accounted for directly as a firm asset. Rather, legitimacy is an intangible asset that allows an emerging venture to access critical resources from stakeholders (Zott & Huy, 2007). Being intangible

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in nature, however, many entrepreneurs and new venture leaders may not even be aware they have attained it. We address this issue in the present research by approaching the assessment of legitimacy from the perspective of the business-related *activities* associated with pre- and post-legitimacy attainment, and, thus, we are able to develop and begin to validate the legitimacy threshold scale (LTS).

Literature Review

To date, legitimacy research has investigated the myriad ways legitimacy can be attained, either through isomorphic firm behaviors, strategic means, or social relationships (e.g., Parhankangas & Ehrlich, 2014; Rutherford & Nagy, 2015). In addition, many studies have been conducted to investigate what are the likely antecedents to legitimacy attainment (Choi & Shepherd, 2005; Nagy, Pollack, Rutherford, & Lohrke, 2012; O'Neil & Ucbasaran, 2016; Pollack, Rutherford, & Nagy, 2012; Zimmerman & Zeitz, 2002). And, overall, researchers agree that failure rates for pre-threshold firms are much higher than for post-threshold firms (Jawahar & McLaughlin, 2001; Singh, Tucker, & House, 1986; Stinchcombe, 1965). However, despite our growing depth of knowledge, we do not yet know how to measure if a company is operating pre- or post-legitimacy. This issue highlights the need to measure the legitimacy threshold.

The Legitimacy Threshold

A legitimacy threshold (LT) is generally accepted to exist in the context of emerging ventures (e.g., Fisher, Kotha, & Lahiri, 2016; Navis & Glynn, 2010; Peake & D'Souza, 2015; Zimmerman & Zeitz, 2002). However, in almost every case, the threshold is assumed or defined as "…an undetermined legitimacy level…" (e.g., Haack, Pfarrer, & Scherer, 2014, p. 649). The issue that eludes the field is the empirical calibration of the concept. The one exception is the work by Rutherford and Buller (2007).

Rutherford and Buller (2007) explicitly sought to quantify as well as validate the notion of the LT as proposed by Zimmerman and Zeitz (2002). Specifically, they interviewed entrepreneurs to understand if they experienced a legitimacy threshold early in the lives of their ventures. In addition, they queried the entrepreneurs on perceived differences between their pre-threshold existence and post-threshold existence. Their work resulted in lists of behaviors that new venture leaders perform, both pre-legitimacy attainment, and post-legitimacy attainment. Their results also suggest no one managerial activity or organizational event can signify the attainment of legitimacy by the almost countless number of organizations in existence. In accordance with this early work in the area to define and quantify activities related to the LT, recent research examines legitimacy thresholds, distinct entrepreneur behaviors, and firm identities, further lending support that firms and new venture leaders are uniquely different pre- and post-legitimacy attainment (Fisher et al., 2016). Moreover, we also hold this contention and attempt to pick up where Rutherford and Buller (2007) left off, and more firmly establish an LT measure that will both help researchers identify where the ventures are in terms of the threshold, and also facilitate the strategic and tactical efforts of new venture leaders as well.

Entrepreneurial Activities and the Legitimacy Threshold

Research in the area of legitimacy threshold crossing, both conceptual theorizing and empirical investigations, has explored the differences in the various foci of pre-legitimacy constituents (e.g., potential financiers, potential customers, potential suppliers), versus post-legitimacy stakeholders (e.g., employees, repeat customers, contractually-bound suppliers) (Überbacher, 2014). On this point, the extant literature is fairly unified in the notion that as a firm crosses the LT, it can and should move from being predominately externally focused (e.g., personal selling, pitching potential investors) to being predominantly internally focused (Chandler, 1962; Greiner, 1972; Jawahar & McLaughlin, 2001; Rutherford & Kuratko, 2016). Also, researchers have investigated the likelihood of crossing the threshold at a faster rate when the new venture is essentially an internal venture and a product of a parent company (Murphy & Tocher, 2011). Additional findings suggest that the legitimacy threshold may be approached via a punctuated equilibrium or a staged process, where very obvious and dramatic changes in the new venture take place post-legitimacy (Fisher et al., 2016; Rutherford & Buller, 2007).

However, what has eluded researchers who have attempted to describe the process of meeting the LT is identifying the approximate point in time when a firm has reached the threshold and developing universal indicators that the threshold has been crossed. We contend that a demonstration of legitimacy should not be based solely on dramatic changes in the new venture, nor exclusively on signs that the new venture has entered a new stage based on solved problems, and not entirely on the ceasing of a dependency on one stakeholder group or another for any particular resource. In contrast, we posit that the LT can be described as crossed when the strategic behavior and operational tactics enacted by the entrepreneur and key internal stakeholders indicate the emerging venture "has made it" and engages in more post-legitimacy activities relative to pre-legitimacy activities (Rutherford & Buller, 2007).

In sum, we believe that looking at the LT from the entrepreneur's standpoint, while not without issue, is beneficial for at least two reasons—one practical and one theoretical. First, there is limited work examining legitimacy from the perspective of the entrepreneur. As noted, this leaves the key figure in this context—the entrepreneur—with limited assistance. As a dyadic construct, legitimacy can be best understood by examining both entrepreneur and stakeholder. Here we complement the latter (e.g., Choi & Shepherd, 2005; Pollack et al., 2012) by focusing upon the former.

Second, and related, the actions of the entrepreneur are theoretically integral to the notion of the LT (Adizes, 1999; Greiner, 1972; Kazanjian, 1988; Miles & Snow, 1978; Smith, Mitchell, & Summer, 1985; Steinmetz, 1969). As Rutherford and Buller (2007) state: "…it is the entrepreneur's management of distinct sets of problems that causes firms to transition from one stage to the next" (p. 82). If the entrepreneur chooses not to act on legitimacy granted from stakeholders, then crossing the LT becomes far less likely. As such, it is crucial to understand how external judgments of legitimacy be best leveraged within the firm. Failure to effectively leverage could render the legitimacy attained moot (Bloodgood, Hornsby, Rutherford, & McFarland, 2017).

Method and Results

Our process of construct operationalization and development for the LTS was a multi-step process including item generation, scale development (i.e., exploratory factor analysis), and a start to the scale evaluation process (i.e., confirmatory factor analysis) (DeVellis, 1991; Hinkin 1998). The final scale consists of six pre-legitimacy items, generally related to resource attainment, as well as three post-legitimacy items, generally related to resource management.

Item Pool Generation

To begin to develop a reliable scale to measure organizations' states related to the legitimacy threshold, we used Rutherford and Buller (2007) as our source of content, in order to create theoretically- and empirically-derived scale items that represent and operationalize 'pre-legitimacy threshold' activities as well as 'post-legitimacy threshold' activities (Churchill & Lewis, 1983). Rutherford and Buller (2007) examined two general categories of behaviors and actions. One pertains to problems related to resource acquisition. The other pertains to the problems related to mainly internal resource management. The initial item generation task involving content analysis was completed by one of the principal investigators and two graduate students interested in new venture research. The content analysis used pages 88 and 89 in the Rutherford and Buller (2007) article, an area in the manuscript where the authors summarize their own qualitative analysis work. The principal investigator and the two graduate students compared notes and checked each other's findings in order to complete the analysis of the content of the Rutherford and Buller (2007) article. Drafting of the preliminary scales to measure the states of pre- and post-legitimacy ensued. Overall, 19 preliminary items to measure pre-legitimacy threshold activities and post-legitimacy threshold activities emerged (i.e., 9 pre-legitimate, 10 post-legitimate).

Next, a panel of five subject matter experts in the field of new venture studies was asked to describe what they felt were appropriate definitions of 'legitimacy attainment' and 'legitimacy threshold.' The panel members were subsequently asked to write down words and phrases they thought should be used in drafting an LTS that included activities needing to be completed before and after the attainment of legitimacy. After this exercise, the panel of experts was then asked to grade the face validity of the 19 preliminary items. Following a procedure similar to Zaichkowsky's (1985), each panel member was asked to rate each of the 19 preliminary items as "representative," "somewhat representative," or "not representative" of one of the two constructs of interest. After this process, all 19 items were kept in the preliminary pool of items, as each was rated as either "representative" or "somewhat representative" of either the preliminary LTS activity construct or post LTS activity construct, by all five panel members.

Participants and Procedures for Scale Development

Following the item generation portion of the study, we constructed a questionnaire containing the 19 pre- and post-legitimacy attainment items using a five-point Likert scale with response anchors of (1) "strongly disagree" and (5) "strongly agree." We asked 186 junior- or senior-standing students enrolled in a 'principles of management' course at a medium-sized private university in the mid-western region of the United States to have a friend or family member who was currently a business owner complete the items. Students received extra credit on their participation grade for completing this task. From this process, 151 students provided referrals and our sample of entrepreneurs was asked to complete the 19 item LTS (Nunnally & Bernstein, 1994). Our sample (N = 151) of entrepreneurs in new and emerging ventures was slightly more male (65% male), approximately 45 years old, and worked an average of 44 hours per week.

Exploratory Factor Analysis

Using the data collected, we analyzed the 19 items us-

Table 1
Preliminary items stemming from content analysis of Rutherford and Buller (2007)

Pre-legitimacy activity-based items
The organization is focused on networking and broadcasting its mission.
The organization is focused on persistent personal selling.
The organization is focused on the broadcasting the niche it serves.
The organization is focused on hiring key employees.
The organization is focused on receiving advice from individual like mentors and consultants.
The organization's founder and managers are likely not being paid large weekly salaries.
The organization's founder and managers are likely working out of their houses.
The organization is focused on obtaining funding for operations.
The organization is focused on trying to win awards it has not yet earned.
Post-legitimacy activity-based items
The organization has hired key people in various departments.
The organization has recently or could use added space to operate.
The organization has formal job descriptions for its employees.
The organization is focused on developing a formal information technology system.
The organization's structure (hierarchy and chain of command) has changed significantly since its beginning.
The organization has not changed significantly since its beginning.
The organization has established a key customer base.
The organization has established a place of operation, either bricks-and-mortar, or on-line.
The organization has established multiple locations where it operates.
The organization has formal employee handbooks and directions for task completion.

ing principal axis factoring in an effort to best model the shared variance among the latent variables' factors. We expected the latent variables to be slightly correlated, so an oblique rotation was chosen to produce a better estimate of the true factors and a better simple structure than orthogonal rotation (Hair, Anderson, & Tatham, 1987; Nunnally & Bernstein 1994). A three-factor model was first estimated. Items with low factor loadings (<.50), high cross loadings (>.40), or low communalities (<.30) were considered for elimination. After inspection of the questionable items, 4 items were deleted (2 cross-loading items, and 2 items with factor loadings <.50). The remaining 15 items were included in a second exploratory factor analysis attempt with the same criteria employed as the first, with one exception—a two-factor model was estimated. This second EFA attempt resulted in the need to delete three more items due to cross loadings. A final two-factor solution using 11 items (7 pre-legitimacy, 4 post-legitimacy) accounted for approximately 49% of the total variance in the data, and exhibited a KMO measure of sampling adequacy of .79. All factor loadings ranged from .48 to .85.

Confirmatory Analyses and Scale Refinement

After completing the EFA process, we constructed a survey of the remaining 11 LTS items. Similar to our sampling method for the data used for the EFA, we asked 131 junior- or senior-standing students enrolled in a 'principles of management' course at a medium-sized private university in the mid-western region of the United States to have a friend or family member who was currently a business owner complete the survey. Our final sample (N = 124) of entrepreneurs in new and emerging ventures was predominantly male (75% male), worked an average of 50 hours per week—and, 65% of this sample were first-time entrepreneurs at the time of data collection.

We then employed confirmatory factor analysis (CFA) with the goal of improving the measurement properties of the scale (Anderson & Gerbing 1988; MacCallum 1986). We estimated an 11-item confirmatory factor model that declared the use of two latent variables. Inspection of fit indices, and the measurement accuracy, of this preliminary CFA model indicated the model was likely not optimal ($\chi2 = 126.17$, $df = 43$, $\rho = .000$, GFI = .84; AGFI = .76; CFI = .86; NNFI = .82; SRMR = .12; RMSEA = .125). Squared multiple correlations (SMCs) ranged from .17 to .81. Items that had inordinate amounts of modification indices related to them or did not sufficiently explain a significant amount of variance in the underlying latent variables they represented were subsequently deleted, and an additional structural equation model was computed. Two items were deleted during the course of formulating a more suitable CFA model (i.e., PRELEGIT6 and POSTLEGIT3). The result-

Table 2
Remaining items after the exploratory factor analyses, reliability statistics, and loadings

Pre-legitimacy activities (Cronbach's alpha=.790)	Factor 1 Loading	Factor 2 Loading
PRELEGIT1: The organization is focused on networking and broadcasting its mission.	-.105	.625
PRELEGIT2: The organization is focused on persistent personal selling.	-.200	.593
PRELEGIT3: The organization is focused on the broadcasting the niche it serves.	.219	.665
PRELEGIT4: The organization is focused on receiving advice from individual like mentors and consultants.	.222	.678
PRELEGIT5: The organization is focused on obtaining funding for operations.	-.219	.513
PRELEGIT6: The organization is focused on hiring people for the first time.	.321	.650
PRELEGIT7: The organization is focused on trying to win awards it has not yet earned.	-.037	.477
Post-legitimacy activities (Cronbach's alpha = .860)		
POSTLEGIT1: The organization has hired key people in various departments.	.854	-.011
POSTLEGIT2: The organization has formal job descriptions for its employees.	.847	-.034
POSTLEGIT3: The organization is focused on developing a formal information technology system.	.738	-.010
POSTLEGIT4: The organization has formal employee handbooks and directions for task completion.	.780	-.075

ing final confirmatory model, estimated using the remaining nine items, exhibited sufficient fit ($\chi2$ = 35.43, *df* = 26, ρ = .10275, GFI = .94; AGFI = .90; CFI = .98; NNFI = .97; SRMR = .07; RMSEA = .054). Noting the Chi-square statistic was now not statistically significant at the $\rho \leq .10$ level and the fit indices were well within ranges of acceptability (Hu & Bentler, 1999), we concluded that the final nine items parsimoniously represented the two dimensions of legitimizing activities that occur before and after the legitimacy threshold has been crossed by an emerging venture.

We next sought to establish the independence of the two measures by employing Gaski and Nevin's (1985) procedure for establishing the independence of scales. If a measure has a higher reliability estimate than the correlations with the other measure, evidence of independence among the measures is established. Because the Chronbach alpha statistics for each mean-centered variable representing each of the two measures (.758, $p < .01$, PREALL; .740, $p < .01$, POSTALL) is greater in value than the correlation coefficient estimate between the variables representing the constructs (.-.209, $p < .01$, PREALL and POSTALL) we concluded these items do perform as intended, representing unique constructs.

Discussion and Implications

We developed a scale that will help researchers and practitioners better identify whether or not a new venture has crossed the legitimacy threshold. By assessing the salient behaviors and tactics enacted by entrepreneurs and key internal stakeholders at one point in time, a mean score that is higher on the post-legitimacy items, relative to the pre-legitimacy items, can provide initial evidence consistent with the inference that a venture is operating post-legitimacy attainment. We feel this ability to identify where the new venture is in terms of the LT is important, as after the scale's use, entrepreneurs and other new venture leaders will be better able to target their efforts pertaining to internal and external stakeholders.

Theoretical Implications

Researchers have been undecided about when a new firm reaches and crosses the legitimacy threshold (e.g., Scott & Bruce, 1987; Zimmerman & Zeitz, 2002) as well as what the differences are between entrepreneurs' behaviors and tactics that take place pre- and post-legitimacy attainment. We explore this legitimacy threshold, defined as the point in time just past when emerging ventures struggle for viability, and many times likely fail. This was clearly the next step needed in the literature to understand the phenomena and finer details associated with legitimacy attainment.

In terms of theory, the LTS is a large departure from the usual way of measuring legitimacy, which is through the perceptions of external stakeholders. In contrast to the

Table 3
The Legitimacy Threshold Scale (LTS): A scale to measure activities performed pre- and post- legitimacy attainment in emerging ventures

Construct	Items	Cronbach Alpha	EFA item loading	CFA item loading
Pre-legitimacy threshold activities	The organization is focused on networking and broadcasting its mission.	.758	.63	.80
	The organization is focused on persistent personal selling.		.59	.48
	The organization is focused on the broad-casting the niche it serves.		.67	.56
	The organization is focused on receiving advice from individuals like mentors and consultants.		.68	. 67
	The organization is focused on obtaining funding for operations.		.51	.42
	The organization is focused on trying to win awards it has not yet earned.		.48	.31
Post-legitimacy threshold activities	The organization has formal job descriptions for its employees.	.740	.85	1.05
	The organization is focused on developing a formal information technology system.		.74	1.23
	The organization has formal employee hand-books and directions for task completion.		.78	.60

norms in the literature, we focus on the behaviors and actions of the entrepreneur as a legitimacy indicator, relative to the extant literature that is almost entirely focused on legitimacy judgments via stakeholder perceptions (Choi & Shepherd, 2005; Suchman, 1995; van Werven, Bouwmeester, & Cornelissen, 2015). Other researchers have noted the need to focus on the entrepreneur's actions as indicators of legitimacy attainment (Bhide, 2000; Kelley & Marram, 2004; Rutherford & Buller, 2007). Overall, our scale aids the process of examining when a new venture has crossed the legitimacy threshold, by measuring entrepreneurs' behaviors and tactics, and helps to mitigate the issues related to stakeholders' cognitive limitations and inabilities to decode signals of legitimacy that may impede the legitimacy attainment process (Peake & D'Souza, 2015).

Indeed, using legitimacy perceptions as a social judgment from an external audience perspective assumes that stakeholders are willing to observe and able to understand the multiple signals of a particular emerging venture. However, organization theory scholars suggest that stakeholders form cognitive legitimacy judgment as a routine task, and as a result, are not always willing or able to invest sufficient time in collecting and processing information from a particular organization (Bitektine, 2011). Therefore, our focus on entrepreneurs' behaviors and actions may be a more reliable and objective method to identify legitimacy attainment. This provides a substantial, and needed, recalibration in the literature on legitimacy in emerging ventures.

Practical Implications

This research provides entrepreneurs the ability to assess when a given firm has or may reach the legitimacy threshold, and illuminates certain means of expediting the process of reaching the threshold (Adizes, 1999; Greiner, 1972). This awareness may quicken access to resources from key external stakeholders, which in turn may increase the propensity of new venture survival by ways of legitimacy attainment (Clarkson, 1995; Pfeffer & Salancik, 1978).

The accurate assessment of when the legitimacy threshold is reached may provide entrepreneurs with the ability to accelerate the pace at which legitimacy is reached. For instance, overall awareness of the environmentally based activities new venture leaders must focus on in order to reach the legitimacy threshold (e.g., broadcasting the mission, persistent personal selling, broadcasting the niche served, seeking advice from mentors) is essential for legitimacy attainment. Awareness and use of this study's scale items should help to reinforce this. In addition, knowing what entrepreneurs' behaviors and actions must take place in order to cross the legitimacy threshold may shorten the amount of time new venture leaders spend in the realm of operating with a focus on pre-threshold activities. In addition, once the legitimacy threshold is known to have been crossed, facilitated by the use of the legitimacy threshold scale items, new venture teams can shift some of their attention, time and resources to management of internal needs, post-legitimacy attainment, to better ensure organizational success. Moreover, researchers reliant on data collected from entrepreneurs who are operating their ventures on either side of the threshold will now be able to better judge the organizational development phase of any venture by adding the legitimacy threshold scale to their survey instruments.

Limitations and Future Directions for Research

This study, and our assertions stemming from it, has limitations. We recognize the assessment of legitimacy using our newly developed scale is only made from the viewpoint of the entrepreneur and/or her leadership team. The legitimacy threshold scale we developed is a self-assessment tool; so, even though an entrepreneur infers her new venture has attained legitimacy based on relatively high scoring on the scale's post-legitimacy items, this legitimacy attainment cannot be validated based on external stakeholder perceptions. Unless explicitly told, external stakeholders are unaware of what the managerial objectives and activities are in organizations with which they transact and interact. Future research may consider incorporating a paired method of data collection, wherein entrepreneur and several of their external stakeholders are interviewed.

Another limitation associated with this study is the entrepreneurial activities that comprise the final list of pre- and post-legitimacy items are arguably focused on only two distinct aspects of managing a new venture. The pre-legitimacy activities are externally based and arguably omit activities related to specific legitimacy-seeking activities aimed at key stakeholders like customers and financiers. The post-legitimacy activities are internally based and do not consider activities performed by new venture owners and leaders that are aimed as satisfying the needs and desires of key stakeholders other than employees, post legitimacy attainment. This study's reliance on the empirical work of Rutherford and Buller (2007) may have limited the overall list of activities that could have been included in the initial list of items generated during the content analysis phase of this study.

Further empirical validation of the LTS is needed. In particular, additional data are needed from samples that are more diverse in terms of age, geography, race, ethnicity, and nationality. Studies that are longitudinal in nature are especially recommended—this would help ascertain whether or not legitimacy is a stable characteristic or whether it can be attained and then lost. Related, future work is needed to address the convergent and discriminant validity of the LTS as compared with other measures in the domains of management and entrepreneurship. And, one additional promising line of research is to examine different types of legitimacy. Here, in the present work, we focus on general legitimacy. In the future, more focused measures can explore, for example, cognitive, industry, and regulatory legitimacy among others (e.g., Bitektine, 2011).

Conclusion

The completion of the development of the LTS marks the next step for empirically studying legitimacy in the emerging venture context. In terms of resource allocation, studies can now investigate where entrepreneurs' time, efforts and money are best spent based on their ventures' positions either as pre-legitimacy threshold or post-legitimacy threshold. In addition, the LTS may serve as a guide to understanding the most appropriate times to enact certain strategies (e.g., differentiation and low-cost) to be able to increase market share without straining resources at inopportune times. In conclusion, we hope the LTS will contribute to the efforts of both researchers and practitioners to create and sustain successful emerging ventures.

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