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Talking in defence of species conservation: The role of laws and community norms conflicts  
across stages of a communicative action

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**Abstract:** New laws promoting species conservation in protected sites are often contested by local communities. Conflicts between the laws and community norms may explain this; yet the literature on normative conflicts has still not examined such laws-norms conflicts. It has moreover been inconclusive regarding the (negative or positive) relationship between normative conflicts and action, and has not studied how they affect engagement in communicative actions supporting the laws. A stage model (Trans-Theoretical Model) was used to clarify how two types of conflicts – between the law and community descriptive and injunctive norms, and between the latter two – are associated to transitions from awareness to engagement in communicative action. A survey to 342 residents in Portuguese Natura 2000 sites showed stronger normative conflicts at pre-action (versus post-action) stages. Additionally, conflict between injunctive and descriptive community norms is lower and more invariant across stages than conflict between them and the law, suggesting a higher relevance of the later for (dis)engagement in communicative action. We discuss the contributions a stage perspective may offer for improving the implementation of conservation laws.

**Keywords:** normative conflict; laws; community norms; biodiversity conservation; stage approach

Biodiversity conservation efforts in Europe rely primarily on the issuing of new laws designating and governing areas deemed of priority for the protection of certain species and habitats. As part of the governance process, these new laws provide normative injunctive force to new actions aimed at achieving collective, societal goals (Castro, 2012; Tankard & Paluck, 2016). Yet, to become coordinated actions at the local level, the new laws have to be accommodated into the existing informal local norms, whose injunctive (i.e., goals, priorities) and descriptive (i.e., actions) dimensions are not necessarily immediately aligned with the legal ones (Castro, 2012; Smith, Thomas, & McGarty, 2015). Thus, conflicts between the new laws and the older community norms can originate resistance to their implementation at the local level, in the same way that sometimes conflicts between different types of informal norms raise barriers to new actions (Smith & Louis, 2008).

The literature on norm conflicts, however, reports mixed results, showing that conflicting informal norms may instead sometimes encourage action – e.g., when norms are associated with in-groups (McDonald, Fielding & Louis, 2014a). In the present study we thus look at the community and the laws as two relevant sources of pressure for change and elaboration of new meaning (Mouro & Castro, 2016), and examine whether the clashes between them – i.e. between perceived community norms and agreeing with what the conservation laws prescribe for the community - are associated with residents' engagement with new conservation actions. A communicative action was chosen as conservation action, for responding to the need to give more attention to the role of communication about what is new as a contribution to change (Smith et al., 2015). Hence, in this article we explore how the adoption of a new communicative action – to defend the conservation of a local at-risk species in conversations with co-residents in the community – relates to conflicts between agreement with the laws and perceived community norms, not yet examined by the literature.

Another contribution of this article to untangling the mixed findings regarding normative conflicts arises from acknowledging that the integration of new actions into existing everyday routines occurs at different paces for different people within a community. To depict the plurality of levels of community engagement in a communicative action endorsing new conservation laws, we selected the Trans-Theoretical Model (TTM) of behavioural change (Prochaska & DiClemente, 1983), a model extensively used in the health domain (Armitage, 2009) and recently as well with pro-environmental travel behaviours (Forward, 2014). This model proposes that behavioural change proceeds through five stages characterized by a combination of different levels of awareness, intention and action. This, in turn, allows us to zoom into the processes of meaning making taking place at each stage. The TTM contemplates a set of individual-level processes (e.g., ambivalence, self-efficacy) happening across stages, but fails to take into account community-level and societal-level variables – such as perceived community norms and agreement with the laws – that may also shape the construction of meaning and the decision taking processes involved in behavioural change (Castro, 2012; Elcheroth, Doise & Reicher, 2011; Mouro & Castro, 2016). Here we will tackle these lacunae by examining the prevalence of conflict between the law and community norms for residents at the different stages of the TTM.

### ***A multilevel and stage approach toward social change***

By adopting a multilevel and stage approach toward social change, the present study intends to shed light on normative conflicts as processes that intervene in community responses to new biodiversity conservation laws. For this, we draw on the assumption shared by social representations theory (SRT, Moscovici, 1988) and the focus theory of normative conduct (Cialdini, Reno, & Kallgren, 1990) that our representations, or shared beliefs, about others organize our practices. Thus, these meta-representations are central for making sense

of new or unfamiliar ideas and actions (cf. Elcheroth et al., 2011). In the literature on social norms, these meta-beliefs or meta-representations are distinguished as being about *what others think* (injunctive normative beliefs) *and what others do* (descriptive normative beliefs), both with an impact on the willingness to engage in new behaviours (Cialdini, et al., 1990).

The relationship between norms and action found in this literature is, however, mixed (McDonald et al., 2014a). Some studies suggest that higher levels of conflict between injunctive and descriptive normative beliefs are associated with less action (McDonald, Fielding & Louis, 2014b; Smith & Louis 2008), while other studies have pointed out that conflicting norms from different in-groups are sometimes associated with higher intention or engagement in action (McDonald et al., 2014a). Considering multiple in-groups is consistent with the SRT view that various types of self-other relations always mediate the sense making regarding (new) objects (Moscovici, 1972). For the case at hand, this means that the Self works with beliefs about what fellow residents (the community Other) do and approve, and what the State (the institutional Other of the nation) approves (Elcheroth et al., 2011; Mouro & Castro, 2016). And that these meta-representations can either encourage resistance to the laws, thereby delaying change, or, when one agrees with what the law prescribes, stimulate change and help stabilize new meaning and actions (Mouro & Castro, 2016). In this last case, a conflict between what the laws prescribe and community norms may prompt the person to “become the change s/he wants to see in the world” (Smith et al., 2015; also McDonald et al., 2014a), and to speak out in order to try to persuade others (Smith et al., 2015).

A fundamental part of law-related changes is thus the joint elaboration of the new meanings and the communicative exchanges within the community about them (Mouro & Castro, 2016). In line with this, previous research showed how agreeing with the conservation laws and holding meta-representations of the community as favouring the protection a species is positively related to talking in defence of an at-risk species (Mouro & Castro, 2016). Yet

the combined – or conflicting - effect of these two sources of influence and pressure for change has not been studied. Thus, in this paper we investigate whether the two types of conflict (between perceived community descriptive and injunctive norms, on the one hand, and between agreeing with the laws and community norms on the other) distinctively relate to the adoption of a new communicative action. Our study was carried out in Natura 2000 protected sites, in the course of a project for the conservation of the Iberian lynx. The issuing of the new Natura 2000 laws and the implementation of local conservation projects introduced conservation topics into the public sphere and stimulated local debates about the laws (cf. Castro, Mouro & Gouveia, 2012). These debates happen in a heterogeneous public sphere, mobilizing different views, thus leading to expect that awareness of and engagement with new actions on behalf of the laws may vary within communities. Assuming that this heterogeneity may also be associated to norm-action relations, we used a stage model to examine the association of the perceived conflicts between national laws and local community norms with the willingness to publicly defend the conservation of the lynx.

As mentioned above, in the health domain, behavioural change has been extensively studied as a discontinuous process with the TTM (Prochaska & DiClemente, 1983). This model addresses behavioural change towards a new specific action as organized into five stages. In the first, *precontemplation*, the person has not yet thought about the new action. In the second stage, *contemplation*, people have started to think about adopting the new action but do not yet have a clear intention of doing so. The third, or *preparation*, stage regards people who are preparing for the action and intend to perform it. In stage four, *action*, people already carry out the action, albeit infrequently, while in the last stage, *maintenance*, the action is repeated over time. Thus, the five stages proposed in the model allow us to zoom in on processes of meaning making and decision taking happening *before and after* awareness,

intention and action take place. In other words, they enable the examination of the conditions in which a specific action is considered, evaluated, performed, and maintained over time.

The model indicates several individual-level processes that occur when people are at the different stages, such as ambivalence. Ambivalence, known as a barrier to engagement in action, has a non-linear relationship with the five stages of TTM. People in the first and last stages of the model experience lower levels of ambivalence than those at the intermediate ones (Armitage, Povey, & Arden, 2003). This suggests that moving towards intention and action often implies that the person first experiences conflicting beliefs, and then resolves these conflicts so that action may stabilize (Armitage et al., 2003). The relevance of these findings for the present study is two-fold. First, it indicates that the TTM is useful for comparing how the relationship between conflicting views and action happens across stages. It secondly suggests that conflicts have non-linear differences across the stages, and that these differences can offer important insights into their possible role in considering a specific action. However, the model has not to date considered that these conflicts may be associated not only with individual-level variables, but also with community and societal-level ones (Mouro & Castro, 2016). To extend the TTM to the community and societal levels of analysis, we will examine the levels of local social norms and agreement with national laws and their levels of compatibility across the TTM stages.

### ***Overview of goals***

In sum, research on normative conflicts has found mixed results for the norm-action relationship and has not taken into account that conflicts can also happen between new laws and existing community norms. It is consequently not known whether the two types of conflict here addressed (descriptive with injunctive norms; community norms with agreement with the laws) relate differently to the adoption of a new action. Examining normative



conflicts within the TTM stages will elucidate the role of both types of conflicts by considering the stage of awareness, intention and action the person is in. The goals of the study are, thus, to describe and compare, across the five TTM stages of willingness to publicly defend the conservation of the lynx, (a) levels of agreement with laws and the two types of community norms (descriptive and injunctive); (b) conflict between the new laws and the two community norms; and (c) conflict between the two community norms. As we are looking at legally-framed behaviours, and in consonance with the focus theory of normative conduct, we anticipate that conflicts between community norms and laws will be more relevant for decisions about action than community-level conflicts. We also expect the levels of conflict to present non-linear patterns across the stages, being stronger for residents at intermediate (post-awareness/pre-action) stages and lower in those who have not yet considered the action or have already acted.

## **Method**

### ***Participants***

The participants were 452 residents in three Natura 2000 protected sites in the south of Portugal, “Moura-Barrancos”, “Vale do Guadiana” and “Serra do Caldeirão”, which have specifically been targeted as particularly relevant for the protection of the Iberian lynx. The sample was representative of the populations living in the region, according to the *Census 2011*. To ensure meaningful answers to our measures, the present study reports only responses of residents who indicated being familiar with the lynx ( $n=342$ , 75.7%). In this sub-sample, 51.6% were female; ages varied from 19 to 89 years ( $M=53.50$ ;  $SD=17.89$ ); and time of residence in the area averaged 48.87 years ( $SD=20.93$ ). Fifty-six per cent had completed at least six years of formal education.

### *Procedure and variables*

Participants responded to a questionnaire carried out by trained interviewers, in their home. The variables are presented below, with items detailed in the Appendix:

*Agreement with local conservation laws* was measured by three items, following Mouro and Castro (2016): e.g., “Biodiversity laws have goals that are aligned with what I believe is correct for this community” (1-totally disagree, 5-totally agree;  $\alpha=0.68$ ;  $M=3.98$ ;  $SD=0.64$ ).

*Injunctive normative beliefs* were assessed by three items, following Mouro and Castro (2016): e.g., “In my community, people think one should protect the lynx” (1-totally disagree, 5-totally agree;  $\alpha=0.88$ ;  $M=3.23$ ;  $SD=0.94$ )<sup>1</sup>.

*Descriptive normative beliefs* were measured by three items following Mouro and Castro (2016): e.g., “How many of the people important to you engage in actions that help protect the lynx?” (1-none, 5-all;  $\alpha=0.93$ ;  $M=2.49$ ;  $SD=0.97$ ).

*Normative conflicts* were computed using the formula  $ABS(X - Y)$ , after McDonald et al. (2014b). The possible range of conflict values was between 0 (no conflict) and 4 (high conflict). The mean scores found for each conflict were: Law-Injunctive norm  $M=0.75$  ( $SD=0.95$ ); Law-Descriptive norm  $M=1.50$  ( $SD=0.96$ ); and Injunctive-Descriptive norms  $M=0.83$  ( $SD=0.80$ ).

*TTM stages* were defined using three questions (adapted from Armitage et al., 2003) addressing *Awareness* ( $M=2.14$ ;  $SD=1.24$ ), *Intention* ( $M=2.38$ ;  $SD=1.02$ ), and *Action* ( $M=1.72$ ;  $SD=0.97$ )<sup>2</sup>. Questions and scales are detailed in the Appendix. The first three stages implicated no previous action, thus only respondents with level 1 in Action were considered.

<sup>1</sup> In the same survey, 69,7% of the residents responded they considered *important to support the protection of the lynx*, indicating that the injunctive normative belief for the community is aligned with the “effective injunctive norm” resulting from the sum of individual positions in the community.

<sup>2</sup> The operationalization of the TTM stages is not uniform in the literature, varying between 5-item scales and a combination of answers to three questions similar to the measure used in this study. Our choice resulted from it being of easier application and comprehension by our participants (a sample of a population with low educational levels).

*Stage 1.precontemplation* was attributed to responses of level 1 in Awareness, Intention and Action ( $N=62$ ; 18.1%). *Stage 2.contemplation* included combined responses of level 1 and above in Awareness and level 1 to 3 in Intention ( $N=113$ ; 33.0%). *Stage 3.preparation* was attributed to levels 4 and 5 of Intention, and level 3 if Awareness  $>1$  ( $N=15$ ; 4.4%). *Stage 4.(discontinuous) action* included Action responses 2 and 3 ( $N=129$ ; 37.7%), while Action responses 4 or 5 were categorized as *Stage 5.maintenance* ( $N=23$ ; 6.7%).

The questionnaire also collected socio-demographic data.

## Results

We first present the results for normative beliefs and agreement with the law across stages, before their transformation into normative conflict indexes. To calculate the differences between persons at each stage of change, we used ANOVAS with *Bonferroni* post-hoc comparisons. The ANOVAs indicated significant differences for the three variables ( $F_{\text{agreement with law}}(4,337)=6.406, p<.000$ ;  $F_{\text{injunctive norm}}(4,337)=16.433, p<.000$ ;  $F_{\text{descriptive norm}}(4,337)=32.864, p<.000$ ). The results of post-hoc comparisons (Figure 1) illustrate how injunctive and descriptive normative beliefs present lower values for people at the first three stages compared to those in the last two stages. Agreement with the law has lower values for those in the first stage compared to people in the two post-action stages.

We also verified whether the levels of the variables changed in a linear fashion across the stages. Adjustments to linear and non-linear trends were tested with polynomial-based orthogonal contrasts. All three variables had significant linear relationships with the stages of change (all  $p<.000$ ). Descriptive normative beliefs also presented a significant quadratic relationship ( $p<.01$ ), evidenced by the stronger increment from stage *3.preparation* to *4.action*.

INSERT FIGURE 1

Figure 2 illustrates the stages' comparisons for the conflict indexes. Law-Descriptive Norm conflict had the highest values and, contrary to what was expected, Law-Injunctive Norm conflict and Injunctive-Descriptive Norms conflict presented similar lower levels. The ANOVAs indicated significant differences by TTM stages for the three indexes ( $F_{\text{Law-DescNorm conflict}}(4,337)=15.165, p<.000$ ;  $F_{\text{Law-InjNorm conflict}}(4,337)=6.354, p<.000$ ;  $F_{\text{Inj-DescNorm conflict}}(4,337)=2.556, p<.05$ ). Law-Descriptive Norm conflict was stronger at the first three stages and then significantly lower after action. Law-Injunctive Norm conflict was higher at stage 2. *contemplation* and significantly lower at stage 4. (*discontinuous*) *action*. The Injunctive-Descriptive Norms conflict had no significant differences according to the *Bonferroni post-hoc* test, although *Tukey B* test indicated a significant difference between stage 3. *preparation* and stage 5. *maintenance*. Thus, the expected differences between residents in the first and the intermediate stages were not found, there were significant differences only between residents in pre-action stages and the post-action stages.

#### INSERT FIGURE 2

Polynomial-based orthogonal contrasts were used to test whether these patterns were non-linear, as expected. Although all normative conflicts presented linear patterns ( $p<.05$ ), the Law-Descriptive Norm conflict also presented a significant quadratic relationship ( $p<.01$ ), and the Law-Injunctive Norm conflict had a significant cubic relation with TTM stages ( $p<.01$ ).

## Discussion

In previous research, norm conflicts have been shown to have both positive and negative associations with action. This study aimed at clarifying how norm conflicts relate

with the adoption of conservation behaviours by adopting a multilevel and stage approach to change. We specifically explored whether conflicts between (a) personal agreement with the laws and perceived community norms and (b) descriptive and injunctive community norms were differently related to the (stages of) engagement with a communicative action by local communities governed by new conservation laws.

The results showed that the level of agreement with the laws and normative beliefs increases when we compare responses across the stages of TTM. This indicates a positive relationship between norms and conservation actions, supporting, thus, the results of previous studies (e.g., Forward, 2014; Mouro & Castro, 2016). Norm conflicts presented a different pattern, being stronger in residents at pre-action stages, versus those at post-action stages. Additionally, the analyses showed that for the “agreement with the law-community norms” conflicts there are peaks of norm conflict in the residents in stages 2.contemplation and 3.preparation, compared to the other stages. This finding suggests that law-community norm conflicts have a role in raising awareness and intention about the new action, thus fostering performance (McDonald et al., 2014a; Smith et al., 2015). At the same time, the results point to the need to resolve these conflicts so that the action may be maintained over time, in line with studies reporting negative relationships of norm conflicts with action (McDonald et al., 2014b). Importantly, examining a new communicative action supporting the law clarifies how community members may be, at the same time, performing “the change they want to see in the world” (Smith et al., 2015) and, by doing so while interacting with others, changing the (norms of the) community. The convergence of own-community expectations in the post-action stages should then be understood as also resulting from a behaviour that is performed with others.

The conflict between injunctive and descriptive community norms was weaker and more stable (across stages) than those between these norms and the position towards the law.

This suggests, as proposed, that the conflict between the law and perceived community norms is more relevant for engagement in legally-framed action than conflicts between community norms. Another possible reason for this result is that these are newer demands on local communities, when compared to other conservation behaviours like recycling, for which injunctive and descriptive norms have now become more visible (Bertoldo & Castro, 2016).

One limitation of the current study is that the cross-sectional design used does not permit inferences about stage transitions. For this, longitudinal or experimental designs should be employed. Nonetheless, the non-linear patterns found stress the relevance of looking at how these meaning making processes unfold across time and when different levels of self-other relations are being considered. Examining norm conflicts across the TTM stages allowed us to unveil the distinct roles they may assume in the process of change, thus shedding light on the mixed results so far reported in the literature.

From a policy-intervention perspective, this study highlights how new laws can be powerful sources of normative ideals, not only for the self but also for the community (Castro, 2012; Mouro & Castro, 2016). It also shows that a discrepancy between what the law prescribes (as an ideal) and what the community approves of and/or does can – at different stages of sense-making and engagement in action – both make the person decide to act and delay action. The fact that the (resolution of) law-community norm conflicts may have a positive role in conservation action advises us to re-affirm the need for participatory forums, where encounters between the legal and the local sphere – and the communicative actions there occurring - may produce new shared understandings of community-based biodiversity conservation.

## References

- Armitage, C.J. (2009). Is there utility in the transtheoretical model? *British Journal of Health Psychology, 14*, 195-210.
- Armitage, C.J., Povey, R., & Arden, M.A. (2003). Evidence for discontinuity patterns across the stages of change: A role for attitudinal ambivalence. *Psychology & Health, 18*, 373-386.
- Bertoldo, R., & Castro, P. (2016). The outer influence inside us: Exploring the relation between social and personal norms. *Resources, Conservation & Recycling, 112*, 45-53.
- Castro, P. (2012). Legal innovation for social change: Exploring change and resistance to different types of sustainability laws. *Political Psychology, 33*, 105-121.
- Castro, P., Mouro, C., & Gouveia, R. (2012). The conservation of biodiversity in protected areas: Comparing the presentation of legal innovations in the national and the regional press. *Society & Natural Resources, 25*(6), 539-555.
- Cialdini, R.B., Reno, R.R., & Kallgren, C.A. (1990). A focus theory of normative conduct: recycling the concept of norms to reduce littering in public places. *Journal of Personality and Social Psychology, 58*, 1015.
- Elcheroth, G., Doise, W., & Reicher, S. (2011). On the knowledge of politics and the politics of knowledge: How a social representations approach helps us rethink the subject of political psychology. *Political Psychology, 32*, 729-758.
- Forward, S.E. (2014). Exploring people's willingness to bike using a combination of the theory of planned behavioural and the transtheoretical model. *European Review of Applied Psychology, 64*, 151-159.
- McDonald, R. I., Fielding, K. S., & Louis, W. R. (2014a). Conflicting norms highlight the need for action. *Environment and Behavior, 46*, 139-162.
- McDonald, R.I., Fielding, K.S., & Louis, W.R. (2014b). Conflicting social norms and community conservation compliance. *Journal for Nature Conservation, 22*(3), 212-216.

- Mouro, C., & Castro, P. (2016). Self–Other Relations in Biodiversity Conservation in the Community: Representational Processes and Adjustment to New Actions. *Journal of Community & Applied Social Psychology*, 26, 340-353.
- Moscovici, S. (1972). Theory and society in social psychology. In J. Israel, & H. Tajfel (Eds.), *The context of social psychology: A critical assessment*. London: Academic Press.
- Moscovici, S. (1988). Notes towards a description of social representations. *European Journal of Social Psychology*, 18, 211-250.
- Prochaska, J.O., & DiClemente, C.C. (1983). Stages and processes of self-change of smoking: Toward an integrative model of change. *Journal of Consulting & Clinical Psychology*, 51, 390-395.
- Smith, J.R., & Louis, W.R. (2008). Do as we say and as we do: The interplay of descriptive and injunctive group norms in the attitude–behaviour relationship. *British Journal of Social Psychology*, 47, 647-666.
- Smith, L.G., Thomas, E.F., & McGarty, C. (2015). “We must be the change we want to see in the world”: Integrating norms and identities through social interaction. *Political Psychology*, 36, 543-557.
- Tankard, M.E., & Paluck, E.L. (2016). Norm perception as a vehicle for social change. *Social Issues & Policy Review*, 10, 181-211.



Appendix:

*Agreement with local conservation laws*

“Do you agree with the existence of protected sites regulated by biodiversity conservation laws in this community?”

“Biodiversity laws have goals that are aligned with what I believe is correct for this community”

“The goals of biodiversity laws for this community are aligned with my personal goals”

*Injunctive normative beliefs*

“In my community, people think one should protect the lynx”

“In my region, people think one should protect the lynx”

“People important to me think one should protect the lynx”

*Descriptive normative beliefs*

“How many of the people in your community engage in actions that help protect the lynx?”

“How many of the people in your region engage in actions ...?”

“How many of the people important to you engage in actions ...?”

*TTM stages*

*Awareness* “Have you ever thought about publicly defending the importance of protecting the lynx when in conversations with friends and acquaintances?” (1-never, 2-rarely, 3-a few times, 4-often, 5-very often).

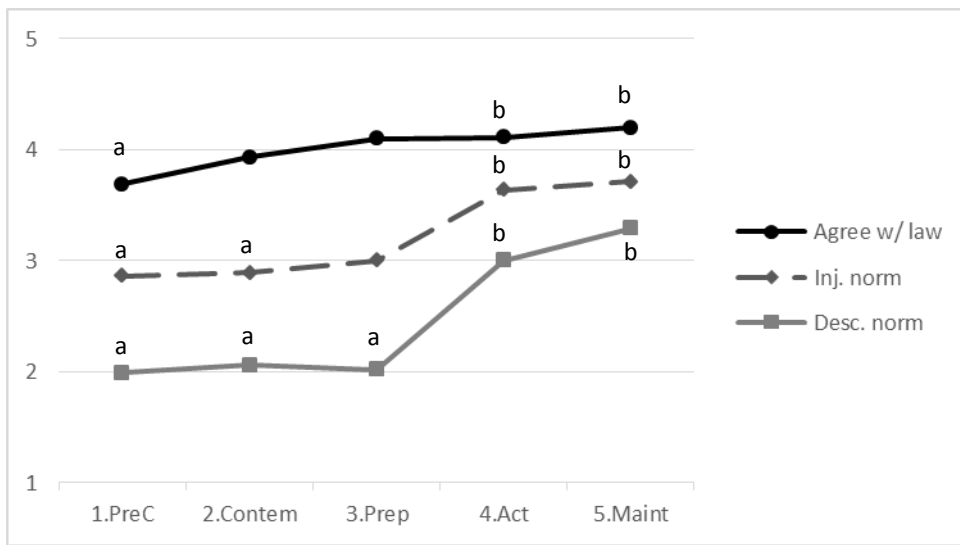
*Intention* “In the future, how willing are you to publicly defend ... protecting the lynx?” (1-not at all, 2-a little, 3-more or less, 4-a lot, 5-very much).

*Action* “In the past, have you ever publicly defended ... protecting the lynx?” (1-never, 2-rarely, 3-a few times, 4-often, 5-very often).

Figure 1. Means across stages in normative beliefs and agreement with the law

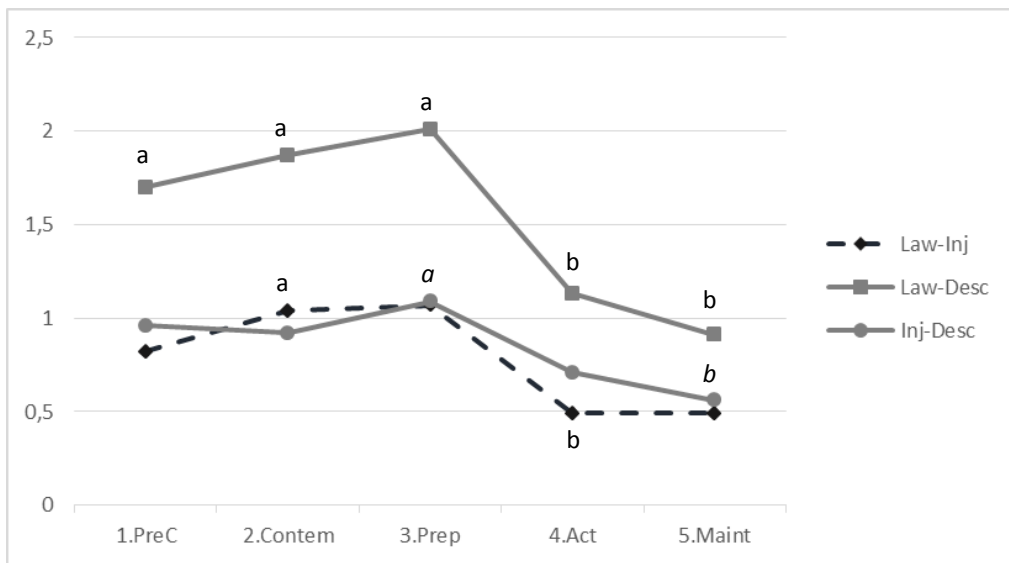
Figure 2. Means across stages in law and community norms conflicts

Figure 1. Means across stages in normative beliefs and agreement with the law



Different letters indicate post-hoc significant statistical differences between the means.

Figure 2. Means across stages in law and community norms conflicts



Different letters indicate post-hoc significant statistical differences between the means.