
Criminal and economic threat, personal values, and psychological reactions to crime

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In this study, we investigated the effects of experimentally manipulated criminal and economic threats on psychological reactions to crime. In addition, we examined if these effects were moderated by participants' personal values. Two moderated regressions performed on the data from a quasi-experimental vignette study (N = 96) showed that criminal and economic threat influenced fear of crime and crime risk perception. These effects were significant only (for economic threat) or were stronger (for criminal threat) among people high in conservatism.

Crime is one of the most severe social problems of Western societies (Taylor & Hale, 1986). Its most interesting socio-psychological consequences are psychological reactions to crime, mainly fear of crime, i.e., an emotional response characterized by being afraid of being victimized (Ross & Jang, 2000) and perceived risk of crime, i.e., the perception of the probability of being victimized (Rountree & Land, 1996).

Recent multilevel analyses showed that both fear of crime and perceived risk of crime are the consequence of a mix of individual and contextual variables (e.g., Brunton-Smith & Sturgis, 2011; Gaitán-Rossi & Shen, 2016; Russo, Roccato & Vieno, 2011). At the individual level, they tend to depend on people's physical and social vulnerability and social marginality (Hipp, 2010; Pantazis, 2000). At the contextual level, they are significantly associated with the crime rate of the community where people live (e.g., Rountree & Land, 1996; Russo, Roccato & Vieno, 2013). At a first glance, such result would speak in favor of the «rationality» of psychological reactions to crime, because crime rates may be considered as a proxy variable for the objective risk of being victimized (Lupton & Tulloch, 1999). However, at country level, fear of crime is also related to economic inequality and low expenditure on education and social protection, suggesting that psychological reactions to crime

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are, at least in part, social and economic insecurity in disguise (Vieno, Roccato & Russo, 2013). Both criminal and economic threats are «realistic threats» (Stephan & Stephan, 1996), in that they are proximal and/or directly experienced threats to the very existence of the individuals, such as to the physical and material well-being.

The psychological reactions to threats are influenced by people's personal values (e.g., Roccato & Russo, 2009). This is not surprising, given that personal values serve as guiding principles in people's lives and provide representations of desirable situations and that they influence fears by increasing the perception of threats to valued goals (Schwartz, Sagiv & Boehnke, 2000). Values are also the motivational underpinnings of  social constructs strongly involved in the intergroup and threat perceptions, such as social dominance orientation and right-wing authoritarianism (Cohrs, Moschner, Maes & Kielmann, 2005).


According to Schwartz (1992), two bipolar dimensions of interrelated and conflicting values account for individual value orientation: conservatism (tradition, conformity, and security) versus openness to change (self-direction, stimulation, and hedonism) and self-transcendence (benevolence and universalism) versus self-enhancement (power and achievement). The first dimension captures the conflict between self-restriction, preservation of traditional practices, and protection of stability versus one's own independent thought and action and favouring change. The second dimension contrasts the values emphasizing concern for the welfare and interests of others and the values emphasizing pursuit of one's own interests and relative success and dominance over others.

The pursuit of conservatism and self-enhancement serves to cope with anxiety due to uncertainty in the social and physical world by avoiding conflict and maintaining the current order or by actively controlling threat. On the other side, openness to change and self-transcendence are growth or self-expansive values, which promote the gaining of goals by expressing anxiety-free motivations (Schwartz, 2012). Consistent with this, openness to change and self-transcendence values were found to be negatively related to concrete fear of crime (i.e., personal fear of crime) and abstract fear of crime (i.e., concern about crime as a social problem) (Russo & Roccato, 2009) as well as to micro-worries (i.e., concerns with self and closed others) (Boehnke & Schwartz, 1997). On the contrary, people whose values priorities addressed conservatism and self-enhancement showed high levels of both types of fear and of micro-worries. Interestingly, in Barni and colleagues' (2016) study, fear of crime, measured in terms of feeling of insecurity, was associated with the cross-level interaction between participant's level of conservatism and self-enhancement and country's crime rates: When living in contexts characterized by high crime rates, people who valued conservatism and self-enhancement tended to express high levels of fear of crime.

In the wake of the literature above, in this paper we addressed two main questions. First, do criminal and economic threats affect fear of crime and crime risk perception? Consistent with Lindström et al. (2003) and Vieno et al. (2013), we

expected both criminal (H1) and economic (H2) threat to foster them. Second, do these effects depend on people's value orientation? Relying on the idea that values influence fears by increasing attention to, and the perception of threats to valued goals (Schwartz et al., 2000), we hypothesized that the effects of threats would be stronger for participants giving priority to self-protection values, i.e., conservative versus openness to change values (H3) and self-enhancement versus self-transcendence values (H4). Indeed, self-protection values, by emphasizing the importance of preserving social order and of enhancing self-interests, should lead people to be particularly concerned about their own personal safety.

1. Method

We performed a quasi-experimental vignette study with a snowball community sample composed of 96 residents in  Italy (men = 47.9%, $M_{age} = 32.73$, $SD = 12.42$, ranging from 19 to 69). On average, our participants had completed 14.45 years of formal education ($SD = 2.95$, min = 8, max = 21). The data were collected via the Internet by two research assistants, who sent the link to the questionnaire to people from their social network, asking them to participate and to forward such link to other people.

The questionnaire was divided into three sections. In the first, we administered a standard sociodemographic form and the short version of the Portrait Values Questionnaire (Schwartz, 2003), whose items were drawn from the complete version of the scale validated in Italian by Capanna, Vecchione and Schwartz (2005). Participants indicated how similar they felt to 21 short descriptions of a hypothetical person by rating their responses on a 1 («not like me at all») to 6 («very much like me») scale. As it is the relative importance of the values to a person – rather than the absolute importance of each value – that guides perceptions, attitudes, and behaviours (Schwartz, 1992), we used Verkasalo and colleagues' (2009) equation to measure the relative importance of conservative over openness to change values and that of self-transcendence over self-enhancement values. The participants' scores for the two value dimensions were computed as linear combination of each individual's responses on the items using the weights of the equation.

Like previously done by Manzi, Roccato, and Russo (2015), in the second section, participants were asked to imagine themselves in the hypothetical situation of coming back to Italy in 2025 after some years spent abroad. They were told that they had to get a sense of what the country had become. A randomly selected group of participants ($n = 33$) read a scenario depicting Italy as a very dangerous place, in which criminality is widespread and armed squads control many cities districts (criminal threat condition). Another group ($n = 32$) read a scenario depicting Italy as characterized by a hard and enduring economic crisis, with high unemployment rates and high number of beggars in the streets (economic threat condition). A third group ($n = 31$)

TAB. 1. *Descriptive statistics and reliabilities of the study variables*

Variable	<i>M</i>	<i>SD</i>	α	Range
Conservative values	3.85	9.81	.71	-25.25/23.42
Self-transcendence values	30.34	10.11	.71	1.04/51.17
Manipulation check	5.14	2.11	-	1/7
Fear of crime	2.51	0.80	.90	1/4
Crime risk perception	0.17	2.23	.92	-4.71/4

Note: *M* = Mean; *SD* = Standard Deviation; α = Cronbach's Alpha.

read a scenario depicting Italy as one of the most secure country in the world and the Italians as believing to live in one of the best periods of the human history (secure condition). The texts of the scenarios are available from the corresponding author.

In the last section, participants answered the following item, «How secure would you feel if living in Italy in 2025?», used as manipulation check, and Rader's (2004) scales assessing fear of crime and crime risk perception with 6 items each. Response categories ranged from 1 «not at all» to 4 «very much». In first scale, participants were requested to report how fearful at becoming victim of six crimes, such as burglary, sexual assault, and murder. In the second, they had to report how much risk they perceived to become victims of the same crimes. We computed the individual scores for fear of crime and for crime risk perceptions as the mean scores of the scales' items.

2. Results

Descriptive statistics for all study measures are reported in Table 1. A preliminary analysis showed that our manipulation was effective: Participants in the condition of criminal ($M = 5.99$, $SD = 1.65$) and economic ($M = 6.47$, $SD = 0.95$) threat reported higher insecurity than those in the secure condition ($M = 2.87$, $SD = 1.50$), $F(2,93) = 60.99$, $p < .001$, partial $\eta^2 = .57$. Bonferroni post hoc tests showed no differences between the criminal and economic threat condition ($p = .521$), and significant differences between the secure and both the criminal and economic threat conditions (both $ps < .001$).

Table 2 shows the results of two moderated regressions aimed at predicting fear of crime and crime risk perception as a function of criminal and economic threat (the secure condition was the reference category) and basic personal values, mean centered, (Step 1), and of the interactions between threats and values (Step 2). As expected, consistent with H1 and H2, economic and criminal threats fostered both fear of crime and crime risk perception. The impact of criminal threat on fear of crime was stronger than that of economic threat, $t(188) = 2.16$, $p = .03$, while their influence on crime risk perception was statistically equal, $t(188) = 0.58$, $p = .56$.

TAB. 2. Prediction of fear of crime and of crime risk perception

	Fear of crime		Crime risk perception	
	ΔR^2	β	ΔR^2	β
Step 1	.43***		.36***	
Economic threat		.45***		.52***
Criminal threat		.73***		.60***
Conservative values		.14		.18*
Self-transcendence values		.09		.03
Step 2	.06*		.08*	
Economic threat*conservative values		.37**		.41**
Economic threat*self-transcendence values		.19		.22
Criminal threat*conservative values		.36**		.30*
Criminal threat*self-transcendence values		.13		.25
Total R^2	.49***		.44***	

Note: Economic threat is coded as 1 = economic threat, 0 = no threat/criminal threat; criminal threat is coded as 1 = criminal threat, 0 = no threat/economic threat. * $p < .05$, ** $p < .01$, *** $p < .001$.

Consistent with H3, these effects were moderated by conservative values. However, contrary to H4, self-enhancement values did not moderate such associations. The simple slope analyses showed that the effects of economic threat on fear of crime and crime risk perception were significant among people scoring high in conservatism, *simple slope* = 1.26, *SE* = 0.23, $p < .001$, 95% CI [0.80, 1.71] and = 3.97, *SE* = 0.67, $p < .001$, 95% CI [2.63, 5.30] respectively, but not among low conservatism scorers, *simple slopes* = .35, *SE* = 0.22, $p = .113$, 95% CI [-0.08, 0.78] and = 1.09, *SE* = 0.63, $p = .090$, 95% CI [-0.17, 2.35]. Somewhat consistently, the influence of criminal threat on the dependent variables was stronger among people scoring high in conservatism, *simple slope* = 1.73, *SE* = 0.24, $p < .001$, 95% CI [1.26, 2.19] and = 4.03, *SE* = 0.69, $p < .001$, 95% CI [2.66, 5.40] than among low conservatism scorers, *simple slopes* = 0.80, *SE* = 0.23, $p < .001$, 95% CI [0.35, 1.25] and = 1.74, *SE* = 0.66, $p = .010$, 95% CI [0.44, 3.07] (cf. Figure 1). More specifically, moderator values defining Johnson-Neyman significance regions indicated that, only at low levels of conservatism, threats became non-significantly related to fear of crime (-8.60 for economic threat and -14.43 for criminal threat) and to crime risk perception (-9.00 for economic threat and -12.03 for criminal threat). Finally, we also checked whether the effects observed were moderated by gender and whether gender had a direct effect on the psychological reactions to crime. We have found no significant effects of gender.

3. Discussion

Psychological variables, far from developing in a contextual vacuum, often depend on the interaction between individual and ecological features (Lavine, Lodge, Poli-

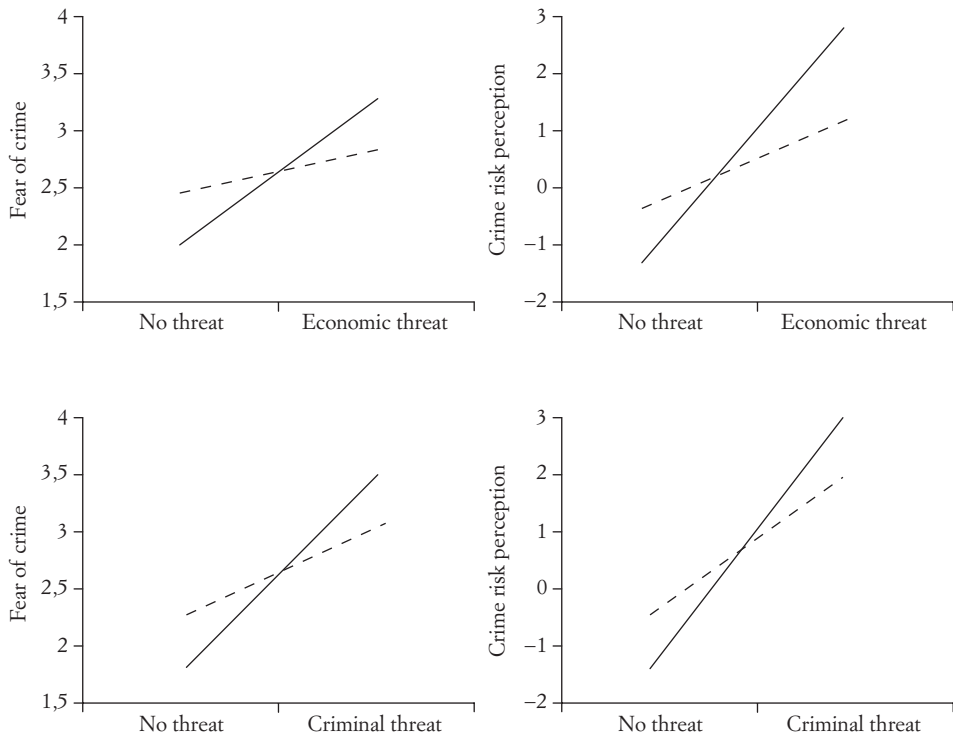


FIG. 1. *Personal values moderate the relation between threat and psychological reactions to crime (in all graphs, dotted line is low conservatism (-1 SD), solid line is high conservatism (+1 SD)).*

chak & Taber, 2002). In this light, consistent with Lewin's (1936) classic idea that every psychological, behavioral, and social event is the consequence of the interplay between the state of the person and that of his/her environment in a given moment, stable individual variables and contextual characteristics showed to interact in influencing socially relevant outcomes (Mischel, 1968). In this study, we focused on the conditional effects of two realistic threats, criminal and economic threats, on fear of crime and crime risk perception. Consistent with our hypotheses (H1 and H2), both types of threats triggered feelings of fear and intensified crime risk perception. Interestingly, criminal threat fostered fear of crime more than economic threat, while the two kinds of threat exerted the same impact on participants' crime risk perception, even if the tendency was in the same direction. As a whole, these results were in line with previous studies showing that psychological reactions to crime may convey economic as well as crime-related insecurities, and can disguise, at least in part, worries related to a variety of wider issues (Vieno et al., 2013). However, as a whole, they showed that, at least in part, psychological reactions to crime should be conceived as «rational» responses to the actual risk of victimization.

In this respect, our choice not to limit our investigation to fear of crime, but to extend it to the cognitive psychological reactions to crime was definitely a plus of this study. Our choice to measure our dependent variables via multifacet scales, instead of the often-used and often-disapproved standard British Crime Survey single item «How safe do you feel walking alone in the area where you live after dark?» (Rader, 2004) was another strength of this research.

We also found that these effects were especially pronounced among participants with conservative values. In other words, as hypothesized (H3), threat showed to be a bigger source of fear and risk perception for those who value the importance of conservatism above that of openness to change. A number of theories, including theories of social dominance orientation, right-wing authoritarianism, dogmatism, and uncertainty avoidance, imply that people high in conservatism have heightened motivational needs for order and structure (see Jost, Glaser, Kruglanski & Sulloway, 2003 for a review). Conservatism is avoidance-based as it is focused on preventing negative outcomes (e.g., societal losses) via inhibition (restraints) in the interests of social order (Jannof-Bulman, 2009). This helps to understand why in contexts of salient dangers and insecurity people giving value to conservatism perceive themselves as high at risk.

Contrary to our expectations (H4) though, the preference for self-enhancement values, which emphasize self-interest through control/dominance over people and resources, did not moderate the effects of threat on the dependent variables. We can only speculate about this point: a high-risk social context is perceived as very threatening by those people who greatly value the respect of social norms and, in return, expect to be «socially protected» against threats. According to Schwartz (2012), conservative values are indeed social-focused values, regulating how one relates to others and to society at large. On the contrary, self-enhancement values are focused on personal interests and likely are more related to people's personal resources—rather than to social context—in dealing with threats. In other words, people giving importance to values such as power and achievement could be less influenced by the social context and use personal activation and affirmation as primary means of social regulation. Future research could test empirically this line of interpretation.

Among the limitations of the study, it should be noted that we included a small, non-representative sample. Thus, new studies replicating these results on independent samples would be of high importance. Moreover, in this study we manipulated the features of participants' context, but not their values, either in terms of activation or in terms of self-focus (Verplanken & Holland, 2002). We could indeed expect that enhancing activation of self-central values would lead to value-congruent attitudes and behaviors. Thus, we could take conclusions on causal effects exerted by participants' context, but not by their stable psychological variable. An experimental design performed by manipulating both the individual and the contextual variables could be interesting. Finally, other individual level factors related to in-

tergroup and threat perceptions, such as social dominance orientation, right-wing authoritarianism, dogmatism, and uncertainty avoidance, might be fruitfully explored as other moderators of the link between threats and psychological reactions to crime.

Despite these limitations, this study contributed to our understanding of the psychological reactions to crime by showing that people channel different worries into fear of crime and crime risk perception, and that people who value social order are more prone to do so. The findings speak in favor of a psychosocial view of fear of crime, suggesting that it is the outcome of the interaction of individual and contextual factors.

References

- Barni, D., Vieno, A., Roccato, M. & Russo, S. (2016). Basic personal values, the country's crime rate and the fear of crime. *Social Indicators Research*, 129, 1057-1074. doi:10.1007/s11205-015-1161-9.
- Boehnke, K. & Schwartz, S. H. (1997). Fear of war: Relations to values, gender, and mental health in Germany and Israel. *Peace and Conflict: Journal of Peace Psychology*, 3, 149-165. doi:10.1207/s15327949pac0302_3.
- Brunton-Smith, I. & Sturgis, P. (2011). Do neighborhood generate fear of crime? An empirical test using the British Crime Survey. *Criminology*, 49, 331-369. doi:10.1111/j.1745-9125.2011.00228.x.
- Capanna, C., Vecchione, M. & Schwartz, S. H. (2005). La misura dei valori: Un contributo alla valutazione del Portrait Values Questionnaire su un campione italiano [The measure of values: A contribution to the validation of the Portrait Values Questionnaire with an Italian sample]. *Bollettino di Psicologia Applicata*, 246(1), 29-41.
- Cohrs, J. C., Moschner, B., Maes, J. & Kielmann, S. (2005). The motivational bases of right-wing authoritarianism and social dominance orientation: Relations to values and attitudes in the aftermath of September 11, 2001. *Personality and Social Psychology Bulletin*, 31, 1425-1434. doi:10.1177/0146167205275614.
- Gaitán-Rossi, P. & Shen, C. (2016). Fear of crime in Mexico: The impacts of municipality characteristics. *Social Indicators Research*. Advance online publication. doi:10.1007/s11205-016-1488-x.
- Hipp, J. R. (2010). Resident perceptions of crime and disorder: How much is «bias», and how much is social environment differences? *Criminology*, 48, 475-508. doi:10.1111/j.1745-9125.2010.00193.x.
- Janoff-Bulman, R. (2009). To provide or protect: Motivational bases of political liberalism and conservatism. *Psychological Inquiry*, 20, 120-128. doi:10.1080/10478400903028581.
- Jost, J. T., Glaser, J., Kruglanski, A. W. & Sulloway, F. J. (2003). Political conservatism as motivated social cognition. *Psychological Bulletin*, 129, 339-375. doi:10.1037/0033-2909.129.3.339.
- Lavine, H., Lodge, M., Polichak, J. & Taber, C. (2002). Explicating the black box through experimentations: Studies of authoritarianism and threat. *Political Analysis*, 10(4), 343-361.
- Lewin, K. (1936). *Principles of topological psychology*. New York, NY: McGraw-Hill.

- Lindström, M., Merlo, J. & Östergren, P. O. (2003). Social capital and sense of insecurity in the neighbourhood: A population-based multilevel analysis in Malmö, Sweden. *Social Science and Medicine*, 56, 1111-1120. doi:10.1016/S0277-9536(02)00114-4.
- Lupton, D. & Tulloch, J. (1999). Theorizing fear of crime: Beyond the rational/irrational opposition. *British Journal of Sociology*, 50, 507-523. doi:10.1111/j.1468-4446.1999.00507.x.
- Manzi, C., Roccato, M. & Russo, S. (2015). Meaning buffers right-wing authoritarian responses to societal threat via the mediation of loss of perceived control. *Personality and Individual Differences*, 83, 117-121. doi:10.1016/j.paid.2015.04.009.
- Mischel, W. (1968). *Personality and assessment*. New York, NY: Wiley.
- Pantazis, C. (2000). «Fear of crime», vulnerability and poverty: Evidence from the British Crime Survey. *British Journal of Criminology*, 40, 414-436. doi:10.1093/bjc/40.3.414.
- Rader, N. E. (2004). The threat of victimization: A theoretical reconceptualization of fear of crime. *Sociological Spectrum*, 24, 689-704. doi:10.1080/02732170490467936.
- Ross, C. E. & Jang, S. J. (2000). Neighborhood disorder, fear, and mistrust: The buffering role of social ties with neighbors. *American Journal of Community Psychology*, 28, 401-420. doi:10.1023/A:1005137713332.
- Rountree, P. W. & Land, K. C. (1996). Perceived risk versus fear of crime: Empirical evidence of conceptually distinct reactions in survey data. *Social Forces*, 74, 1353-1376. doi:10.2307/2580354.
- Russo, S. & Roccato, M. (2009). Values and fear of crime. In E. P. Lamont (ed.), *Social psychology: New research* (pp. 267-282). New York, NY: Nova Publishers.
- Russo, S., Roccato, M. & Vieno, A. (2011). Predicting perceived risk of crime: A multi-level study. *American Journal of Community Psychology*, 48, 384-394. doi:10.1007/s10464-010-9386-x.
- Russo, S., Roccato, M. & Vieno, A. (2013). Criminal victimization and crime risk perception: A multilevel longitudinal study. *Social Indicators Research*, 112, 535-548. doi:10.1007/s11205-012-0050-8.
- Schwartz, S. H. (1992). Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. In M. P. Zanna (ed.), *Advances in experimental social psychology* (Vol. 25, pp. 1-65). New York, NY: Academic Press.
- Schwartz, S. H. (2003). A proposal for measuring value orientations across nations. In *Questionnaire development report of the European Social Survey* (chap. 7). Retrieved April 18, 2015 from http://www.europeansocialsurvey.org/docs/methodology/core_ess_questionnaire/ESS_core_questionnaire_human_values.pdf.
- Schwartz, S. H. (2012). An overview of the Schwartz theory of basic values. *Online Readings in Psychology and Culture*, 2. Retrieved November 30, 2015 from <http://scholarworks.gvsu.edu/cgi/viewcontent.cgi?article=1116&context=orpc>.
- Schwartz, S. H., Sagiv, L. & Boehnke, K. (2000). Worries and values. *Journal of Personality*, 68, 309-346. doi:10.1111/1467-6494.00099.
- Stephan, W. G. & Stephan, C. (1996). Predicting prejudice. *International Journal of Intercultural Relations*, 20, 409-426. doi:10.1016/0147-1767(96)00026-0.
- Taylor R. B. & Hale M. M. (1986). Testing alternative models of fear of crime. *Journal of Criminal Law and Criminology*, 26, 151-189. doi:10.2307/1143593.
- Verkasalo, M., Lönnqvist, J.-E., Lipsanen, J. & Helkama, K. (2009). European norms and equations for a two dimensional presentation of values as measured with Schwartz's 21-item Portrait Values Questionnaire. *European Journal of Social Psychology*, 39, 780-792. doi:10.1002/ejsp.580.

- Verplanken, B. & Holland, R. W. (2002). Motivated decision-making: Effects of activation and self-centrality of values on choices and behavior. *Journal of Personality and Social Psychology*, 82, 434-447. doi:10.1037/0022-3514.82.3.43.
- Vieno, A., Roccato, M., & Russo, S. (2013). Is fear of crime social and economic insecurity in disguise? A multilevel multinational analysis. *Journal of Community and Applied Social Psychology*, 23, 519-535. doi:10.1002/casp.2150.

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