

Converting social conflict: Focal points and the evolution of cooperation

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Abstract We examine the ability of focal points to transform situations of potential conflict into situations of cooperation. In performing this function, focal points convert “worst-case scenarios” into “better-case scenarios,” which are easier for political economic systems to handle. Focal points thus contribute to the ability of political economies to perform well in the face of less than ideal conditions, enhancing systemic robustness.

Keywords Focal points · Robustness · Cooperation · Conflict

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1. Introduction

Robustness requires a system to perform well in the face of deviations from ideal conditions. Ideal conditions, manifested in the form of assumptions about perfect information, complete markets, instantaneous adjustment, etc., are not difficult to come by in economics. In fact, many would argue that ideal conditions are a hallmark of economic analysis. The familiar joke about three social scientists stranded on an island without food bears testament to this fact. In trying to devise a solution to this conundrum the economist suggests that their hunger can be overcome by simply assuming the presence of food.

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In this paper we aim to relax one of economist's favorite heroic assumptions—perfect information—to examine an important aspect of systemic robustness. This is not the first undertaking to relax the assumption of perfect information. An entire field that focuses on “bounded rationality,” for instance, introduces cognitive constraints on actors and analyzes the outcomes of individuals' behavior with these limitations. But we are among only a few who have considered imperfect information in the context of political economic robustness. Boettke and Leeson (2004) consider the contrasting robustness of liberal vs. socialist political economic arrangements in the face of motivational and informational imperfections. Elsewhere, Boettke and Leeson (2006) have also considered the robustness of these competing systems in the face of disparate and contradictory agent ends, an alternative deviation from ideal assumptions (singular, consistent agent goals).

In this paper we take a different tact in approaching the issue of imperfect information and political economic robustness—one that investigates the role and importance of focal points. To borrow a phrase made famous by Alfred Schutz, focal points are “nodes of orientation” for human decision-making. They constitute shared expectations that coordinate the activities of diverse individuals collectively or independently seeking their ends. Focal points accomplish this by creating commonly understood and anticipated behaviors in situations of uncertainty where a range of potential responses (i.e., a multitude of equilibria) is possible. By harmonizing expected responses, focal points reduce uncertainty despite the presence of imperfect information, enabling individuals to coordinate their activities towards the achievement of their goals.

We encounter a multitude of focal point-facilitated situations every day, from the mundane, such as rules of etiquette, to the critically important, like the rules of exchange. The basic concept of focal points is traceable back to David Hume in his well-known example of two rowers “who pull the oars of a boat . . . by an agreement or convention tho' they have never given promises to each other” (1739: 315). However, focal points are most famously associated with Thomas Schelling (1960), who developed this idea in the context of the numerous potential strategies individuals might pursue in situations of conflict.

This paper examines the ability of focal points to transform situations of potential conflict into situations of cooperation. In performing this function, focal points take “worst case scenarios” and convert them to varying degrees into “better case scenarios,” which are easier for political economic systems to handle. In other words, we examine how focal points can turn “hard cases” that could cause systems to fail, into “easier cases” that systems can digest—i.e., use to produce social welfare-enhancing outcomes—with less difficulty. To do this we consider the role of focal points in coordinating behavior in the state of nature, where there is no formal definer or enforcer of social rules, and thus agents are initially confronted with a situation of pure conflict. By assuming that the state of nature is characterized by extreme conflict, we begin our analysis with “worst case” initial conditions in which individuals' interests are completely at odds with one another. This starting point allows us to then consider how focal points can serve to align individuals' interests, increasing social cooperation.

We are not the first to examine the role of focal points in coordinating individuals in such an environment (see for example, Hampton 1986, Hardin 1991 and Kavak 1986). Previous writers, however, have focused on coordination as it applies to those in the state of nature selecting a sovereign. In contrast to these writers, we focus on the role of focal points in transforming the state of nature from a situation of conflict into one of cooperation. David Friedman (1994) provides a positive theory of the evolution of property rights grounded in notion of focal points. This paper is related to Friedman's approach but focuses more broadly on the development of cooperation and the robustness of the overall political economic system.

2. The worst-case scenario: initial conditions of pure conflict

Schelling (1960) proposes a spectrum with pure coordination games on one end, games of pure conflict on the other, and many combinations of part coordination/part conflict games in between. A coordination game is characterized by the fact that any common effort is a Nash equilibrium.¹ Individuals’ interests are (to a greater or lesser extent) well aligned. Further, all players are better off as common effort increases. Conversely, a situation of pure conflict is characterized by wholly opposing interests, where defection is the equilibrium strategy.

The state of nature has traditionally been characterized as lying on the extreme (pure) conflict end of this spectrum, a characterization that we assume to initially hold in our analysis as well. This depiction of anarchy comes from Hobbes who famously described life in the state of nature is “solitary, poor, nasty, brutish and short.” Hobbes’ description has been subsequently formalized by game theorists in the form of the prisoners’ dilemma, the classic game of conflict. Without an agency of formal enforcement, individuals in this environment have nothing preventing them from stealing, defrauding, and generally failing to recognize the ownership claims of others. Since each individual stands to gain more by plundering his fellow man than interacting with him peacefully, society ends up in a “war of all against all” in which everyone does worse than if they had interacted peaceably with one another. This situation is depicted in Figure 1.

Fig. 1 Worst-Case Initial Conditions: A Situation of Pure Conflict

	Cooperate	Defect
Cooperate	α	θ
Defect	γ	β

When both agents peacefully interact, they both receive α . If one agent attempts to peacefully interact while the other aims to plunder, the peaceful agent who is taken advantage of receives θ , while the plunderer receives γ . If each agent aims to plunder the other, they both incur losses generated by fighting and each earns only β . In this game $\gamma > \alpha > \beta > \theta$ where $2\alpha > (\gamma + \theta) > 2\beta$, which is to say that mutual cooperation is socially efficient.

The unique equilibrium of the one-shot version of this game is for both individuals to defect. Strictly speaking, the logic of the game suggests that in the state of nature individuals will never trade and will always attack one another. This situation—the game’s pure strategy Nash equilibrium—is clearly Pareto dominated by that in which both agents behave peacefully towards one another. If the game is infinitely repeated, or what is equivalent, terminates with some constant unknown probability, cooperation is possible, but so is defection. In fact, as the Folk Theorem dictates, if cooperation is sustainable at all there will normally be an infinite number of equilibria. Therefore, making this game repeated is not necessarily a way of escaping its conflictual nature.

¹ A coordination equilibrium is achieved when the outcome is both a Nash equilibrium *and* when the choice of player 1 is the best choice for player 2 and vice-versa (Lewis 1974 and Klein 1997).

Both casual observation and recent research suggests that the strict game-theoretic outcome of this situation is too strong. Where formal enforcement is absent agents do not immediately and always try and kill and steal from one another. The presence of international anarchy, for instance, has not resulted in all countries adopting a first strike policy, leading to perpetual war that ends in world annihilation. In fact, most countries, most of the time, are in a state of peace, not conflict. Similarly, among primitive people, anarchy has not led to endless fighting and zero trade (Leeson 2006, Leeson and Stringham 2005). On the contrary, in primitive stateless societies, as well as internationally, substantial trade and peaceful cohabitation overwhelmingly prevail.

3. A better-case scenario: from pure conflict to partial cooperation

Focal points provide an idea as to how this transformation from potential conflict to partial cooperation is possible. As Schelling put it: “People *can* often concert their intentions or expectations with others if each knows that the other is trying to do the same. Most situations—perhaps every situation for people who are practiced at this kind of game—provide some clue for coordinating behavior, some focal point for each person’s expectation of what the other expects him to be expected to do” (1960: 57). Among the infinite equilibria that could emerge in response to the situation of conflict individuals initially confront, some of which are cooperative and others of which are violent, focal points help to whittle down the multitude of possibilities by using some payoff-irrelevant feature of the game to coordinate individuals’ behavior with the behavior of others.² If individuals possess some acknowledged commonality over an important behavioral trait that could influence their ability to benefit from social interaction, this commonality presents a conspicuous candidate for focal adoption in forming the basis of their decisions.³

While agents may be inclined in some instances to act violently towards others, their unique ability to reason tends to dominantly endow them in common with a more peaceful inclination, what Adam Smith called a natural propensity to “truck, barter, and exchange.” Seabright (2004) attributes the evolution of this (limited) cooperative propensity to the development and balancing of two characteristics. The first is the ability to engage in rational calculation and realize the benefits from specialization, the division of labor, and economic exchange. The second is the evolution of a reciprocity trait. This trait leads individuals to repay kindness with kindness while responding to defection or betrayal with revenge. Individuals’ shared proclivity to behaviors emerging from these two characteristics creates a focal point—a mutually shared expectation about the inclinations of others—to interact cooperatively to some extent. Recognition of this does mean actors will not in some cases aim to “cheat” others when they can believe they can get away with it. It merely draws attention to the fact a limited, mutually expected degree of cooperation between individuals is reasonable. In this

² There has also been much progress made in the analysis of various kinds of coordination scenarios. See Sugden (1995) for a contrast of “labeling”—i.e., the way players describe the game to themselves—with existential games in which there is a formal structure. On the evolution of equilibria in coordination scenarios played repeatedly, given a population, see Crawford (1991), Kandori, et al. (1993), Young (1993) and Ellison (1993). On the role of pre-play communication in singling out one of the equilibria, see Farrell (1987).

³ According to Schelling, “Where there is no apparent focal point for agreement,” a norm entrepreneur “can create one by his power to make dramatic suggestion . . . coordination requires the common acceptance of some source of suggestion” (1960: 144). On the issue of entrepreneurship over focal points, see Boettke and Coyne (2004).

sense we may call this focal point “weak,” in that it provides a limited node of common expectations about some degree of cooperative behavior.

The presence of a weak focal point of cooperation transforms the situation individuals initially confront—one of pure conflict—into one of partial coordination. A mutual, albeit limited expectation between some individuals that interaction will be peaceful provides them with a degree of confidence that their decision to behave cooperatively will be met by a similar decision from others. Even without spoken communication, a weakly cooperative focal point allows agents to coordinate to some extent on the “cooperate-cooperate” strategy in the upper left-hand box in Figure 1. With reduced uncertainty about the behavior of others, individuals who recognize the benefits of repeated peaceful interaction are willing to attempt the cooperative strategy with others. The presence of this focal point therefore moves society down Schelling’s spectrum, away from the pure conflict extreme, towards greater coordination. This effect is depicted by a move from Figure 1 to a situation closer to that depicted in Figure 2.

Fig. 2 A Better-Case Scenario: Impure Coordination Strategies

	X	Y
X	ϕ	---
Y	---	σ
		ϕ

Individuals’ initially small (but positive) inclination for cooperation converts the prisoners’ dilemma-type situation into a coordination scenario. There are two possibilities in this impure coordination game. Individuals may coordinate by cooperating in the form behavior X, in which case player 1 earns ϕ and player 2 earns σ , or by coordinating in the form of behavior Y, in which case these payoffs are reversed. Note that this payoff structure leaves some degree of conflict between agents intact, as player 1 and player 2 maximize their individual payoffs through reverse coordinating strategies. Nevertheless, a greater degree of cooperation is created in this situation than in the situation of pure conflict that prevailed initially, depicted in Figure 1. In the initial situation, society faced the “worst-case scenario”—one of pure conflict in which individuals’ interests are totally misaligned. As a result, individuals’ ability to mutually gain is undermined, and social welfare suffers. By converting this initial situation to the “better-case scenario” of partial (impure) coordination depicted in Figure 2, the weak cooperative focal point discussed above reduces the severity of the social dilemma that individuals confront. Individuals’ interests become closer and thus better aligned. The presence of this focal point substitutes an easier social problem for the system to handle (partial coordination) for one that is more difficult (pure conflict).

Even the creation of “purer” coordination scenarios resulting from weakly focal cooperation may result in inefficient equilibrium outcomes, but still create more coordination than the situation of pure conflict the system initially began with. Consider Figure 3.

Here there is no conflict between individuals over the preferred mode of cooperative behavior. Both players prefer the higher trade equilibrium, in which they earn the higher payoff (ϕ, ϕ), to the lower trade equilibrium, in which they earn the lower payoff (σ, σ). Nevertheless, imperfect information and thus imperfect coordination creates the possibility that

Fig. 3 Another Better-Case Scenario: Higher and Lower Trade Coordination

	Higher Trade	Lower Trade
Higher Trade	φ	---
Lower Trade	---	σ

individuals could become “locked into” the sub-optimal lower trade equilibrium. Although not the “best case,” even this situation, however, constitutes a better case than the worst-case situation of pure conflict that originally prevailed. Thus, here too, weakly focal cooperative behavior substitutes a less difficult social problem scenario for a more difficult one.

Importantly, though the weak focal point of cooperation enabled at first by the limited propensity of individuals to cooperate may not itself be sufficient to coordinate agents on the higher trade equilibrium, this weakly focal behavior can be strengthened. Successful but limited cooperation made possible by weak cooperative focal points creates incentives for individuals to develop institutions of additional cooperation. On the one hand, individuals who are able to coordinate their activities toward the end of mutual gain through limited cooperation experience the benefits of this behavior and desire to expand it. The trust built through an initially small level of cooperation serves as the basis for additional, more substantial cooperative interactions in the future.⁴

On the other hand, as individuals cooperatively interact with others, for instance through trade, the satisfaction of their ends becomes more closely interconnected to and dependent upon the activities of others. In this fashion, individuals’ interests endogenously become more closely aligned. In more closely connecting the interests of agents, weakly cooperative focal points operate to raise the cost of antisocial behavior. For example, if through the cooperative interaction enabled by a weakly cooperative focal point, one individual becomes more reliant on another for his food supply, later “cheating” this individual becomes more expensive since doing so jeopardizes his sustenance. Both of these effects of weakly focal cooperation raise the cost of uncooperative behavior and raise the benefit of devising mechanisms that will extend cooperation.

Institutions created by actors to facilitate additional cooperation strengthen individuals’ mutual expectations of cooperative behavior, and with them, cooperation as a focal point of interaction. Just as the prospect of limited cooperation creates a weak focal point that serves to transform situations of pure conflict into ones of partial coordination, so too does limited cooperation with this weak focal point lead individuals to develop solutions to remaining obstacles that stand in the way of their ability to cooperate for mutual gain.

Private, informal institutional arrangements of self-enforcement create a stronger degree of mutually reassured expectations of cooperation by preventing and/or punishing antisocial behavior. For instance, if a community of actors boycotts any of its members who defraud others in exchange, the prospect of this punishment will deter some from engaging in fraudulent behavior. This creates an additional incentive for prospective defrauders, who now are

⁴ For more on the development and perpetuation of trust, see Gambetta (1988).

more likely to behave cooperatively, to behave honestly, strengthening the focality of cooperation from their perspective. Knowledge of this fact in turn gives community members greater certainty in the face of imperfect information about the identity of potential cheaters that they will be dealt with cooperatively in exchange. With greater assurance that antisocial behavior will be punished, community members in general can be more confident that interactions will be cooperative. Their increased expectation of cooperative behavior further strengthens and spreads the focal point of cooperation.

Self-enforcing arrangements thus help to improve the alignment of individuals' interests in the face of temptations to "cheat" potential partners in interaction. By creating more certain (though still not perfectly certain) expectations of cooperation, informal, self-enforcing institutions strengthen the cooperative focal point between individuals and spread this expectation, and thus cooperation as a focal point, to a wider population of individuals. When successful, the equilibrium outcome of the game in Figure 2 improves, moving society from the lower to the higher trade coordination strategy.

Informal arrangements for this purpose include the use of multilateral punishment via ostracism or boycott, the use of costly signals of credibility, the emergence of conflict-inhibiting social norms, and methods of private adjudication to name only a few. The emergence of such private institutional arrangements that prevent conflict and encourage cooperation is well-documented in the literature (see, for instance, Benson 1989; Leeson 2003, 2005a, 2005b, 2005c; Greif 1989, 1993, 2002; Ellickson 1991; Clay 1997; Landa 1994; Milgrom et al. 1990; Greif et al. 1994) and contributes to the fortification and extension of cooperative behavior as focal.

4. Focal point strength and the extent of cooperation

Our analysis suggests that weak focal points of cooperation rooted in individuals' propensity to "truck, barter, and exchange" transform severe social dilemmas, in which cooperation is not possible, into less severe ones, in which cooperation is more widely expected. What we have characterized as "weakness" of the original focal point results from the fact that cooperative behavior is not unanimously recognized as focal by the members of society. Thus, despite increased cooperation, lessened conflict, and the substitution of an easier social problem for a more difficult one, there remain "pockets" of social conflict resulting from weak focal points' inability to fully align (i.e., completely coordinate) individuals' interests.

Here we further consider this aspect of focal points. As implied by the possibility of weak focal points, unanimous consent is not required to establish and maintain cooperative behavior as focal. The greater the extent of a focal point's social recognition, the stronger this focal point will be. And to the extent that this focal point is at least partially cooperative, as we discussed above, the greater will be the extent of cooperation. Importantly, a weak focal point, characterized initially by only limited social recognition, can be made stronger through the activities of individuals, such as the development of informal institutional arrangements mentioned above, and encompass a wider network of individuals. In fact, as we considered above, the limited coordination enabled by weak focal points of cooperation can themselves engender the process whereby they become strengthened.

Focal points play a role on both sides of the political economic order—both in establishing and maintaining it. If individuals cannot coordinate their activities, then a political economic order will be absent; it will not be established in the first place and the initial social condition of pure conflict may persist. Moreover, once established, if focal points fail to continue to coordinate activities, the political economic order will likewise fail. The political

economic order, viewed itself as an intricate focal point, is maintained by enough people to make defection too costly. What is critical in preventing unraveling is therefore a *margin of acquiescence* whereby defecting from the focal strategy is prohibitively expensive (Hardin 1999: 144). This is not to say that some degree of defection can never occur, but rather that once an order is established, large-scale defection is a costly strategy. Defecting can and will be beneficial to some, but not on a large scale once an order is established.

For instance, once we coordinate on driving on the right hand side of the road, if one person then chooses to drive on left hand side, those in the general proximity would suffer but the entire convention would not unravel. Likewise, if someone slams the door in the face of others, the norm of manners, in its entirety, does not unravel. Of course this is costly for the person acting in a rude manner since eventually no one will want to interact with him (assuming the presence of an informal mechanism, for instance ostracism, which punishes antisocial behavior). Once some behavior is established as focal, free riding on the focal strategy through defection becomes more costly since it is more likely that “cheating” will be viewed as such and thus punished by others. Thus, focal behaviors, since they develop this kind of “social momentum,” are largely self-enforcing.

There is some tipping point, however, some level of defection on or rejection of a focal point, beyond which weakness becomes failure and the focal point is undone. If in fact it is the case that a large number of people come to defect, then the previously focal strategy will no longer be focal. In such an instance, individuals will either coordinate on a new strategy, or they will cease to coordinate their activities. In those situations where coordination fails to occur, there will be a lack of cooperation, social order, and progress. In cases characterized by collective action, there must be some underlying notion of what is to be achieved and parties must be able to coordinate their actions toward that end.

Again, this is not to say that there will never be defection or free riding on the focal strategy, but in cases where we observe order, enough people recognize at least limited cooperation as the underlying norm to coordinate their actions toward their ends. Further, despite cases of defection or antisocial behavior, over time coordination scenarios generated by even weak cooperative focal points produce more positive benefits than negative harms and societies forge forward toward greater productivity and wealth. As a result, individuals become more intertwined in larger networks of interdependence and the fabric of mutual benefit that underlies society is continually expanded and strengthened, at each step reducing the extent of conflict—the severity of the social dilemma—that society must overcome to progress.

5. Concluding remarks

The central claim of this paper is that through their potential to convert situations of conflict into situations of greater cooperation, focal points can ease the social problem situation that political economic systems confront. In transforming “worst case” scenarios into “better case” ones, focal points improve systemic robustness, enhancing its ability to generate social welfare increasing outcomes in the face of highly imperfect conditions. Our analysis leads to several conclusions.

First, political economic systems that devise rules consistent with or complementary to individuals’ propensity to “truck, barter, and exchange” can strengthen this basis of cooperative focal points, which in turn reduces the social burden the system has to deal with. Although our discussion considered the state of nature as the starting point of our analysis so that we could appreciate the role of focal points in easing the problem situation confronted

in worst case initial conditions, its basic insight is applicable outside of the state of nature as well. Where government is present, focal points also improve the alignment of individuals' interests, reducing the extent of conflict in society and converting hard social situations into easier ones. For instance, governments that protect private property rights, a policy consistent with and complementary to individuals' propensity for at least limited cooperation, will strengthen cooperative behavior as focal, enhancing the extent of cooperation. On the other hand, governments that try to undermine private property rights will in general weaken this focal point and in doing so threaten widespread cooperation.

Where even weakly cooperative focal points emerge, governments will also have less need to expend resources on activities devoted to preventing/punishing antisocial behavior. It is cheaper to police a society in which cooperation is routine, for example, than to police one where mistrust and fraud are rampant. Likewise, it is less expensive to police a population of individuals in which private, informal institutions that enhance cooperation thrive, than it is to police one in which there are no private institutions that encourage good conduct. Thus, there are also secondary, indirect benefits to cooperative focal points that reduce the burden on the political economy in the form of fewer state-directed resources that must be devoted to preventing/punishing uncooperative behavior.

Second, in light of our framework, it is reasonable to envision the overall political economic order as an intricate focal point that is self-enforcing. Underlying this complex focal point is a series of more basic focal points similar to those discussed above. The evolution of relations and interactions in society can then be seen as the development and/or shifting of these underlying focal points. Changes in such things as fashion, culture, norms, laws, religion, communication, naming and business practices, etc. can be viewed as shifts in focal points. These underlying focal points directly shape the overall political economic order.

Finally, since focal points arise where there are a multitude of equilibria—privileging one of these equilibria over the others—it is important that the actions of governments, in addition to strengthening focal cooperation where possible, are also careful not to tip the balance in favor of a cooperative focal point towards an uncooperative one. This could be achieved explicitly, as is the case for instance in much of the developing world where there are rival ethnic groups and it is not unusual for the state to actively try to shift the balance of power from one ethnic group to another, such as the one that the current ruler is a part of.⁵ However, it could also arise unintentionally, since government—in lending its seal of approval to certain actions and not others through legal codification—can shift social norms and beliefs about acceptable conduct, causing a gradual landslide from one focal behavior to another.

For instance, changes in the legal environment in the United States have given rise to what many now consider to be a norm of litigiousness, whereby any and every problem becomes the domain of lawyers and state courts. Lawsuits in the event of disagreement have in many ways become focal behavior. Prior to this shift, disputes were handled informally, without the aid of lawyers or courts, or were simply accepted as the unavoidable, if irksome cost of social interaction. In contrast, today disagreements are far more frequently seen as evidence of having been “wronged” and as demanding remedy through legal action. This not-so-subtle shift brought about by legal and regulatory changes has in many ways substituted an uncooperative focal point for the more cooperative one that existed prior to it. Thus, if a

⁵ Hardin (1995) focuses on the use of ethnic identity in Bosnia and Rwanda as two examples where coordination has resulted in conflict. In such instances, individuals coordinate with others along ethnic lines and this coordination results in inter-group conflict between ethnicities.

buyer for instance, has a problem with a seller, the focal response is now to sue the seller, rather than to redress his grievance in a less conflictual and socially expensive fashion.

When government action, intentionally or unintentionally, has such an impact on changing focal points, the result is that a more difficult social problem situation (one with greater conflict and less aligned individual interests) replaces a less difficult one. This is precisely the opposite of the effect of cooperative focal behaviors discussed above. It is also precisely the opposite of what is required to enhance systemic robustness.

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