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Focal points in coordinated divergence

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Abstract

We explore situations of coordinated divergence, wherein some people coordinate on a shared cultural practice that diverges from the practice of others. Previous literature on individual drives for uniqueness or difference cannot explain coordinated divergence because it leads to a prediction of idiosyncratic differentiation. Using Schelling's original coordination games as a starting point, we provide experimental evidence that people can effectively solve problems of coordinated divergence [Schelling, T. C. (1960). *The strategy of conflict*. Cambridge, MA: Harvard University Press]. We also discuss why coordinated divergence often takes the form of choosing opposites (long hair/short hair, red/blue, etc.).

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1. Introduction

The Los Angeles gang, the Bloods, wear red bandannas because they think the color suits their name. Their rivals, the Crips, favor blue. Thousands of soldiers returned from World War II wearing regulation military crewcuts, which they kept in civilian life, starting jobs and families while visiting the barber frequently to keep their hair short. Their

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children signaled their emergence into young adulthood in the 1960s by growing their hair long.

In the United States, highly educated people tend to be "cultural omnivores", appreciating a wide range of art, foods, and other cultural practices. Their music tastes include classical, rock, jazz, and Latin; indeed almost every genre of music with a few pointed exceptions – heavy metal, country, and gospel – genres favored by the less educated (Bryson, 1996). Young Europeans, age 18–24, love hip-hop, indie, and hardcore dance music, but less than a third of them admit liking "pop", the overwhelming favorite of kids aged 8–14 (Thornton, 1996, p. 20).

In all of these examples, a social group chooses to diverge from the tastes or cultural practices of another group. Sometimes a group chooses something different from the other group (young Europeans can listen to almost anything other than the pop music favored by pre-teens), and sometimes a group chooses something opposite: red for the Bloods and blue for the Crips, short hair for parents in the 1960s and long hair for their children. All of these practices exhibit what we will call "coordinated divergence": a group coordinates practices within itself but diverges from the practices of other groups (Berger & Heath, 2007; Berger, Heath, & Ho, 2006).

Our goal in this article is to understand how groups might achieve coordinated divergence. Using Schelling's (1960) coordination games as a starting point, we will distinguish coordinated divergence from the kind of divergence that has been most often discussed in previous literature: a kind of divergence in which individuals seek to distinguish their unique selves from the mass of humanity and that leads to a prediction we call idiosyncratic differentiation. In a laboratory experiment we will explore the differences between coordinated divergence and idiosyncratic differentiation, and highlight the tendency for people engaging in coordinated divergence to choose cultural opposites.

1.1. Idiosyncratic differentiation

At first glance, the examples about the Crips/Bloods and long hair/short hair may look familiar to researchers in psychology and economics because both fields have emphasized that people have a drive to distinguish themselves from the mass of humanity. Psychologists have studied individual drives for "uniqueness" (Fromkin, 1970; Snyder & Fromkin, 1980). In economics, Thorstein Veblen (1899/1912) held that the drive to be different predisposed people to engage in conspicuous consumption, making costly choices to set themselves apart from the masses. Leibenstein (1950) argued people often "search for exclusiveness … through the purchase of distinctive clothing, foods, automobiles, houses, or anything else that will in some way set them off from the mass of mankind" (p. 184), and he introduced the term "snob effects" for cases where individuals demand less of a product because others are consuming it (also see Leibenstein, 1976; Granovetter & Soong, 1986; and the minority game of Arthur, 1994). Thus economics and psychology suggest that individuals have a drive to distinguish themselves from others.

But these views share a key problem: by placing the drive for differentiation at the individual level, they suggest a prediction that we label *idiosyncratic differentiation* – people should not care how they diverge as long as they can feel unique or "set off from the mass of mankind". Under these theories, highly educated Americans could easily separate themselves from other highly educated people by developing a passion for heavy metal, and European clubbers could distinguish themselves through a fondness for pre-teen pop. By

focusing on individuals and their internal drives for idiosyncratic differentiation, previous theories in economics and psychology fail to account for the coordinated divergence exhibited in the examples above – that everyone in Group A tends to diverge from everyone in Group B in a similar direction and at the same time.

1.2. Divergence to signal identity

In our view, individuals are not only seeking to distinguish themselves from others; they are also trying to signal an identity that others will understand (see Berger et al., 2006, for an in-depth discussion of this process). It is hard to signal social identities through idiosyncratic differentiation. Idiosyncratic differentiation establishes that a person is different, but it could just be a sign that person is bizarre or made a mistake. Thus, ironically, most kinds of divergence require a very elaborate coordination process. Similar individuals have to coordinate with each other to imbue a cultural practice (e.g., a catchphrase, clothing item, religious ritual) with meaning, and different groups must diverge in their practices to establish their differences.

We define the *meaning* of a cultural practice to be the information an observer receives about someone's identity after observing that person engage in some practice. The task of imbuing cultural practices with meaning is a game with multiple equilibria. Indeed, since the mapping between cultural practices and social meanings is mostly arbitrary (what logic requires that black clothing be hipper than pastels?) this may be the *prototypical* game with multiple equilibria.

1.3. Schelling, focal points, and divergence in cultural practices

Games with multiple equilibria are notoriously difficult to solve, but clever thinkers have proposed some hints about how people solve them. In *The Strategy of Conflict*, Schelling (1960) introduced the idea of the *focal point*, i.e., the equilibrium that people tend to coordinate upon in the absence of communication. Schelling argued that players in a game often choose equilibria based on payoff-irrelevant features of the game. By way of example, Schelling described an informal experiment where players were asked to make a selection from some specific choice domain, e.g., choosing heads or tails, writing down a positive number, or choosing a time and place for a meeting in New York City. Players won the game by making the same choice as a randomly selected partner who they could not communicate with. Schelling found that people were able to coordinate far better than would be expected by random chance even without being able to communicate with the other person. For example when people were asked to coordinate on a meeting in New York City, they spontaneously chose the time of noon and the location of the information booth at Grand Central Station. In Schelling's terminology, both *noon* and *Grand Central Station* are "focal".

In Schelling's games, as in most of the subsequent literature on coordination, all the players have symmetrical preferences so they all want to coordinate on the same action. These symmetrical games have been taken as examples of a broad class of social phenomena. Schelling (1960) himself depicted fashion as this kind of symmetric coordination game, suggesting that "Clothing styles and motorcar fads may reflect a game in which people do not wish to be left out of any majority that forms" (pp. 91–92). As a savvy observer of social life Schelling is unparalleled, but this particular statement reveals something of an

academic's blind-spot for fashion. A pervasive theme in fashion is that at least some people want to distinguish themselves by *not* following the majority. We extend Schelling's original insights to consider situations of coordinated divergence where different sets of people may want to coordinate on different actions: Highly educated Americans want their music tastes to be admired by other educated people not high school dropouts, and 18–24 year-old Europeans want to meet each other, not kids age 8–14. Thus we seek to understand how people coordinate in order to diverge.

2. Meaning, salience, and convention

In this article, we highlight the way that cultural practices help people signal a meaningful identity to others as part of a social communication system. Given the theoretical emphasis on idiosyncratic differentiation, it may not be surprising that previous researchers have often emphasized how cultural practices help an individual express his or her unique *self*. Researchers have argued that individuals use possessions, attitudes, and beliefs to pursue a unique *self*-image (e.g., Fromkin, 1970; Leibenstein, 1950), and to "express *self*-identities" (e.g., Prentice, 1987, p. 993). The famous functional approach to attitudes focuses on psychological benefits an individual derives from expressing "attitudes appropriate to his personal values and to his concept of himself" (Katz, 1960, p. 170). While some researchers have acknowledged that attitudes play a social role (e.g., Abelson & Prentice, 1989; Shavitt, 1990), this "social identity function of attitudes … has primarily been investigated from the perspective of the attitude holder" (Shavitt & Nelson, 1999, p. 38). By focusing on individual self-expression, the literature has neglected the fact that individuals cannot *express* meanings that are not socially understood.

By focusing on how individuals construct identities, the previous literature has neglected the broader question of how tastes gain meaning in the first place. For example, many researchers have suggested that tastes act as part of the social communication system, communicating aspects of the self to others (e.g., Davis, 1992; Douglas & Isherwood, 1978; Holman, 1981; Schlenker, 1980; Solomon, 1983), but researchers have generally not talked about how tastes gain their ability to communicate. If individuals signal identity through tastes, others must be able to understand the meaning of their signals. The notion that cultural tastes can serve as markers to demarcate social groups is familiar to sociologists (Bourdieu, 1979/1984; Douglas & Isherwood, 1978; Simmel, 1904/1957; Goffman, 1951), but they often take these markers as given. As Douglas and Isherwood (1978) note, tastes "are neutral" (p. 12), and we argue that it is only through coordinated choices that tastes are given social meaning.

To understand how cultural practices gain meaning in an endogenous way, a reasonable place to start is the literature in economics which has considered how people solve coordination problems. Theoretical successors to Schelling can be partitioned into those who examine how focal points can derive from social convention and those that focus on rational deduction. Proponents of social convention include Kandori, Mailath, and Rob (1993), and Young (1993), who offer models of how social conventions evolve. In their models, players repeatedly play a particular game and each player receives some information about past periods of play. Players find it optimal to base their expectations in the current period on what happened in the past, so precedence develops into convention. But the evolutionary model suggests an interesting twist: because players can make mistakes in how they

play, the conventions that are most likely to survive are those that are more tolerant to the occasional error. Formally an equilibrium that is more tolerant to errors than another equilibrium is said to "risk dominate" the other equilibrium (Harsanyi & Selten, 1988). Van Huyck, Battalio, and Beil (1990) find experimentally that players playing a coordination game will forgo coordinating on a higher payoff equilibrium in favor of one that reduces risk from occasional deviations.

In the rational deduction tradition, successors of Schelling have explored how players might rationally deduce which equilibria are focal. Bacharach (1993) and Janssen (2001) consider how people might coordinate using attributes of the equilibrium that are not directly tied to payoffs. For example, consider a coordination problem where two players win if they independently write down the same car brand. Bacharach and Janssen argue that players should consider all attributes of car brands (e.g., price range, country of origin, or popularity) and pick the one that maximizes the likelihood of coordination. Players might reject the attribute of price range (because multiple car brands exist in luxury and budget price ranges) and the attribute of country of origin (because multiple car brands are produced in Japan and the United States). But they might end up coordinating on the "most popular" vehicle because it suggests a single choice.

Other authors have considered how the rational deduction process can be simplified by considering salience. Mehta, Starmer, and Sugden (1994) define Schelling salience as a choice that "seems obvious or natural to people who are looking for ways of solving coordination problems" (p. 661). The most Schelling salient choice will often differ from the most-salient choice. For example, if asked to write down a day of the year, my birthday might be the most-salient choice for me and I might assume your birthday is the most salient to you. But if we are trying to coordinate, the most Schelling salient choice might be a day that would be salient to both of us equally, such as today's date or New Year's Day. Mehta et al. argue that the most Schelling salient choice differs from the most salient when salience is not correlated across individuals, a phenomenon modeled formally by Sugden (1995).

In sum, previous work on focal points has proposed two plausible solutions to coordination games: convention and rational deduction. But although this literature is a good place to start in understanding coordinated divergence, note that neither of these plausible solution directly solves the divergence problem. The literature on convention argues that people select what has been selected in the past. But the divergent group cannot follow precedence because they are trying to avoid what has been selected in the past. The literature on rational deduction is insufficient because the divergent group would prefer to avoid what is salient for the majority group. In general, both approaches fall short because they identify ways of finding a *unique* choice or cultural practice. Equilibrium in our game of coordinated divergence requires groups to coordinate on two focal points – one for members of the majority group and one for members of the divergent group. Although the principles for finding a unique equilibrium will not apply directly, they will be useful in helping us understand coordinated divergence where people are choosing pairs of focal points.

Given that the process of meaning creation in coordinated divergence games requires choosing two focal points, and that the prior literature has failed to provide guidance as to how this process works, it is instructive to go back to the beginning, and retrace Schelling's first steps with an eye on two choices not one. Along the way, our experiment will demonstrate that idiosyncratic differentiation is possible – indeed easy – but that it also produces culturally bizarre outcomes of a kind we do not often see in the realm of cultural practices.

3. Coordinated divergence experiment

We are interested in how people handle situations of coordinated divergence. In homage to Schelling, we wanted to know whether people could solve his kind of coordination problem not only for a single focal solution but for a pair of divergent solutions.

We designed this study to model situations where a cultural subgroup diverges to signal its difference from the cultural mainstream. We assigned some participants to the majority group (80% of a population) and some to a minority group (20%), and gave them the goal of coordinating with the majority or diverging from it.

Our design will consider two kinds of divergence. In our *Diverge* condition, people are instructed to diverge from the majority but to coordinate with the other members of the minority. This is the situation we think is most typical in the social environment wherein people try to send a signal that has social meaning. Another group, the *Idiosyncratic* condition, is simply told to diverge from the majority. This is the type of divergence that has most often been discussed by traditional literature in psychology and economics, but we suspected it would be substantially easier than the kind of coordinated divergence we witness for cultural practices.

3.1. Instructions

Participants were told that this experiment was designed to test how well people can coordinate their behavior without communication. They were told that they had been paired with another person or persons, at random, and that they would never know who they had been paired with. They were also given an objective (see below) and told that a subset of people in the experiment would receive $1 for each question where they achieved their objective.

3.2. Experimental manipulations

Participants completed the experiment in one of four experimental conditions, two of which emphasized coordination with the majority and two of which emphasized divergence. All participants saw Fig. 1, depicting the size of the majority and minority groups. Depending on condition they then read one of the following, which assigned them to either the majority (Group A) or minority (Group B) group:

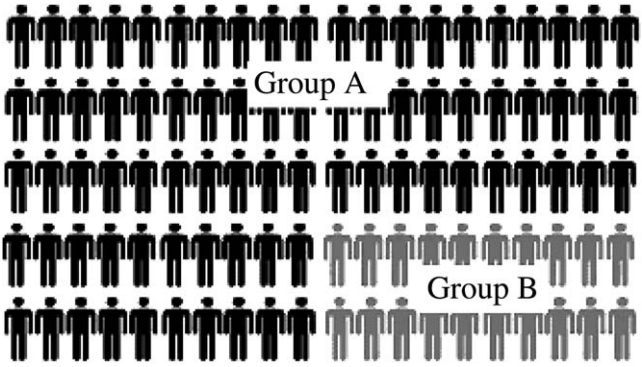

Fig. 1. Diagram participants received depicting size of majoity and minority groups.

Schelling: "You have been assigned to Group A. Your objective is to give the same answer as the *Group A* person with whom you have been paired."

Coordinate: "You have been assigned to Group A. You have also been paired with another person from Group A and a person from Group B. Your objective is to *give* the same answer as the *Group A* person and to *avoid* giving the same answer as the *Group B* person."

Diverge: "You have been assigned to Group B. You have also been paired with another person from Group B and a person from Group A. Your objective is to *give* the same answer as the *Group B* person and to *avoid* giving the same answer as the *Group A* person."

Idiosyncratic: "Your goal is to *avoid* giving the answers given by *Group A members*. Your objective is to avoid giving the same answer as the Group A person with whom you have been paired."

Note that the Schelling condition is designed to replicate the coordination game used by Schelling (1960) and his successors (Mehta et al., 1994; etc.). The Coordinate condition provides a slight twist by emphasizing that participants not only have to coordinate with the majority group, but also diverge from the minority group. The Diverge condition forces people to diverge from the majority but coordinate with the minority. The Idiosyncratic condition allows people to diverge without coordination; they merely have to avoid members of the majority.

To reinforce the experimental manipulations, everyone was presented with an example set in the context of a café, where their goal was to interact with people from their group and avoid running into people from another group. They also worked through two manipulation check problems.

3.3. Participants

Participants were recruited from a large national database of people who had agreed to participate in studies on the internet. Their ages range from 19 to 69 (the mean age for this particular study was 31) and the median education is a college degree with a range from high school to graduate school. Thus the subject population was substantially broader than most experimental studies in economics or psychology.

3.4. Coordination problems

We ran eight of the coordination problems that Schelling discussed in his initial discussion of tacit coordination games (Schelling, 1960, pp. 56–57).[1] We also ran five new problems that asked people to choose among six cultural practices (e.g., music style, car style).

3.5. Results

The results appear in Table 1. The Schelling problems have been assigned their original numbers in Schelling (1960, pp. 56–57).

[1] We omitted his original Problem 7, "name an amount of money", because depending on which question came first, a person's response to this question would be likely to bias their response to the divide $100 question, or vice-versa.

Table 1
Most popular answers given for each question

		Schelling ($n = 29$)	Coordinate ($n = 32$)	Diverge ($n = 35$)	Idiosyncratic ($n = 40$)
Problems from Schelling (1960)					
1. (D) Coin	Heads	**86**	**75**	40	31
	Tails	14	25	**60**	**74**
2. (D) Choose one of 6 numbers	7	28	19	9	0
	100	**41**	**44**	6	18
	13	21	19	**40**	21
	261	0	13	17	**44**
	99	3	3	26	10
	555	7	3	3	10
3. (D) Pick a box in a 4×4 grid	Upper left	**34**	**41**	3	3
	Row 2, Col 2	21	28	**17**	8
	Row 3, Col 3	14	16	**17**	**15**
	Bottom right	17	6	**17**	0
4. (ND) NYC meeting place	Central Park	28	22	14	3
	Empire State	14	16	6	3
	Times Square	**48**	**34**	**26**	3
	Statue of Liberty	7	6	11	3
	Grand Central	0	0	14	3
5. (ND) Meeting time	12:00 PM	**48**	**44**	**37**	15
	1:00 PM	3	6	9	3
	2:00 PM	10	0	9	5
6. (X) Pick any number	1	14	10	6	0
	2	21	22	11	8
	7	14	6	9	0
	8	3	9	11	8
	100	14	6	3	0
8. (ND) Divide $100	50/50	**93**	**78**	**43**	**26**
	25/75	0	9	26	8
	20/80	3	3	11	3
	40/60	3	3	9	3
9. (D) Second ballot vote (1st ballot total)	Robinson (29)	**59**	**56**	17	18
	Jones (28)	31	31	23	8
	Smith (19)	7	3	9	18
	Brown (15)	0	6	9	23
	White (9)	0	3	**40**	**36**
Additional problems on cultural practices					
10. (D) Sport	Football	**76**	**55**	23	13
	Hockey	3	3	3	4
	Ice skating	6	7	**32**	33
	Lacrosse	6	7	26	**38**
	Soccer	9	24	16	13
11. (D) Football Team	Dallas Cowboys	**55**	**45**	19	8
	Denver Broncos	6	17	13	**29**
	NY Giants	15	21	16	8
	Tampa Bay Buccaneers	12	10	23	**29**
	Washington Redskins	12	7	**26**	25

Table 1(*continued*)

		Schelling ($n = 29$)	Coordinate ($n = 32$)	Diverge ($n = 35$)	Idiosyncratic ($n = 40$)
12. (D) President	Abraham Lincoln	36	28	**26**	13
	Andrew Jackson	6	0	16	4
	George Washington	**55**	**59**	16	4
	James Buchanan	3	7	23	**63**
	James Madison	0	7	19	17
13. (D) Music Genre	Country	12	21	**29**	25
	Hip-hop	15	7	19	4
	Jazz	6	7	6	25
	Punk	3	3	16	**38**
	Rock	**64**	**62**	**29**	8
14. (D) Car Style	Hybrid	21	31	**35**	17
	Minivan	9	17	0	17
	Sedan	12	10	26	25
	Station wagon	6	3	19	**33**
	SUV	**52**	**38**	19	8

Note: Bold numbers highlight the modal alternative for each condition whenever the modal response attracts more than 25% of the participants. Results were classified using the following rules: (D) = *Divergence*. There is a clear modal answer for Schelling and Coordination groups and this differs from the Diverge group. (ND) = *No divergence*. There is a clear modal answer for Schelling and Coordination groups but the Diverge group chooses the same answer. (X) = *No effects*. There is no clear modal answer for any group.

Four of the original Schelling problems provide evidence of coordinated divergence (Problems 1, 2, 3, 9). In each of these problems, the modal answer of the Diverge group differs from the modal answer of the Schelling and Coordinate groups. In Problem 9, Schelling asked people to imagine voting in the second round of a runoff for a political candidate, and he provided the number of votes accumulated by each candidate in the first round. Not surprisingly, the Schelling and Coordinate groups chose the highest vote getter in the first round, Robinson, whereas the modal Diverge and Idiosyncratic person chose initially unpopular White. Perhaps the most interesting pattern is Problem 2 where people choose one of six numbers. The modal person in the Schelling and Coordinate groups chose 100, whereas the Diverge group chose unlucky number 13, and members of the Idiosyncratic group chose 261. It is possible to read these data as a somewhat noisy attempt by different groups to establish two different pairs of opposites: (a) lucky number 7 by the majority group versus unlucky 13 for the minority group, and (b) 100 by the majority group versus 99 by the minority group (which is nearby but contrasts with the nice, round 100).

Table 2 summarizes, for each problem, the chances that a participant in each condition would achieve their objective. Table 2 suggests that coordinated divergence is harder than convergence, particularly for problems where there is more than one answer. Note also that idiosyncratic differentiation is easier than anything else.

But while the Idiosyncratic condition is easy, it produces choices that are culturally bizarre in a way that other choices were not. When asked to choose meeting places in New York City, Idiosyncratic participants chose Zabar's deli, the Ed Sullivan Theater, Mesa Grill, Port Authority, and Ollie's noodle shop. For times, they chose 9:01 pm, 11:38 am, 3:22 pm, or 10:06 am. None of these options was ever chosen by any other participants in

Table 2
Probabilities of achieving objectives for various conditions and p values for differences in choice distributions between the Diverge and Idiosyncratic conditions

	Schelling	Coordinate	Diverge	Idiosyncratic	Diverge and Idiosyncratic differ?
(1) Coin	64	36	31	55	0.23
(2) Choose 1 of 6 numbers	10	25	23	81	<0.01
(3) Pick a box	6	25	7	92	0.07
(4) NYC meeting	14	15	9	95	<0.01
(5) Time	11	13	9	99	<0.01
(6) Pick any number	2	7	3	97	<0.01
(8) Divide $100	81	36	12	74	0.07
(9) Voting	24	34	22	81	0.13
(10) Sport	44	29	20	77	0.66
(11) Football team	17	24	16	75	0.35
(12) President	21	35	17	85	0.03
(13) Music Genre	26	31	16	81	0.02
(14) Car Style	15	22	21	75	0.04
Mean	25.8[a]	25.5[a]	15.8[b]	82.1[c]	

Note: At the bottom of the table, means that differ by a superscript differ at $p < .05$ by paired t test. The last column presents the p-value of a Chi-square test examining whether the distribution of responses for the Diverge and Idiosyncratic condition were identical. The entries in this table give the probability of successful matches with two other experimental subjects. In the Schelling condition, success means making the same choice as two other randomly selected subjects. In the Coordinate and Diverge conditions, success means making the same choice with one randomly selected person from one's own group, and a different choice with one randomly selected person from the other group. In the Idiosyncratic condition, success means choosing something different than two randomly selected persons from the Schelling condition.

the experiment. These results emphasize that it is not that hard to be distinctive or unique. Indeed, being "unique" is basically a trivial problem. It is hard, on the other hand, to be distinctive or unique in a way that carries meaning for a broader cultural audience.

The last column of Table 2 shows our participants tended to adopt different strategies for coordinated divergence and idiosyncratic differentiation. Consider our new cultural problems (Problems 10–14). The divergence condition was able to coordinate on either a second-most salient (e.g., Abraham Lincoln for president versus the most salient George Washington) or an opposite cultural practice (e.g., country music as opposed to the most-salient rock-and-roll). The idiosyncratic condition tended to choose options that were just unusual – e.g., James Buchanan, a truly obscure president; punk rock, a classic iconoclastic genre; or a station wagon, a currently unfashionable vehicle.

3.6. Discussion

In solving its dilemma of coordinated divergence, our experimental Diverge group can take advantage of two principles for choosing a focal point: (a) choose what is *second-most salient*, or (b) choose what is *opposite*. Sometimes these principals suggest the same choice but sometimes they are in conflict, and this conflict makes coordinated divergence the most difficult condition that we tested as illustrated by the mean success probabilities in Table 2. For example, in Problem 3, minority group members who chose row 2, column 2 were choosing what is arguably second-most salient. Those who chose the bottom right were choosing an opposite.

"Second-most salient" is a useful solution principle, because it follows a simple rule: Eliminate the most-salient choice (because it will be selected by the majority) then choose what is most salient among the rest. But building on previous literature inspired by Schelling, there are two reasons why diverge groups would choose an *opposite*: risk dominance and efficient attribute use.

Opposites are favored by the principal of risk dominance. This principal suggests that since players occasionally make mistakes, players will tend to coordinate on focal points that are more tolerant to small deviations. If your father has a short haircut, it is tough to establish a divergent position by growing your hair slightly less short, because your father may be late getting his hair cut some day – it is better to go toward the opposite and grow your hair long. If the Bloods wear red, blue is a good choice for the Crips. Had the Crips chosen pink, trouble might arise if a member of the Bloods accidentally adds bleach to his laundry.

Opposites are also favored by efficient attribute use (Bacharach, 1993). There may be reasonable arguments in favor of several second choices, but opposites identify one key choice. For example, in Problem 9, the majority coordinates on the highest vote getter, and the second-highest vote getter is clearly the second-most salient. But the Diverge group successfully coordinates on the opposite choice: the lowest vote-getter (White).

4. General discussion

Postmodern scholars in literature often claim that identities are defined in "opposition". If opposition means opposites, then opposition is not the only solution for solving a game of divergent coordination. In Problem 2, the Coordinate group chose 100, while the Diverge group chose 13. 13 is not the opposite of 100, but it is *different*.

Nonetheless, there is an obvious appeal to opposition. Our game theoretic analysis highlights that choosing opposite practices may often be a safe (in the sense of risk-dominant) strategy for establishing a meaningful alternative identity.

Observers of fads have noted the tendency of new groups to seek to overturn conventional wisdom by taking an opposite approach. In education, enthusiasms go back and forth between phonics approaches (which focus on mastering *parts of words*) and whole language instruction (which focuses on mastering *whole words* in context, see Best, 2006). In management, enthusiasms tend to oscillate between ideas about achieving human potential (e.g., socio-technical school, culture, and human relations school) and ideas about making technical processes more efficient (e.g., time-motion study, total quality management, and reengineering, Barley & Kunda, 1992). In each of these examples, the social arena oscillates between opposites. It's intriguing to think that risk dominance may drive this oscillation. By selecting opposite cultural practices, people seeking to coordinate on a divergent social identity are less likely to be confused with members of the current mainstream.

The Schelling-style game we explored in this article is a particularly rigorous challenge for coordinated divergence, and if we understand the way it is rigorous we might gain additional insight into how coordinated divergence happens in the social world. Schelling's game involves (a) simultaneous choices with no communication, (b) coordination happens among people who occupy the same structural position, and (c) group members have no similarity in their underlying tastes. In real social settings, choice is not simultaneous and communication is allowed – it is easier for kids to coordinate on long hair when they *know*

their parents all have short hair and they can talk to each other to gain confidence to grow their hair long. In real settings, structural positions differ – coordination will be easier when people can see and imitate the actions of high-status members within a group (leaders or "celebrities"). In real settings, the underlying tastes of a group may also be similar – it is easier for a group of young adults to coordinate a move to hip-hop when they already like dance music because the music styles already share some underlying similarities (e.g., heavy bass).

Nonetheless, opposition is still an attractive solution even when these aspects of the social world are added. Schelling (1960) noted that the focal 50/50 division of a sum of money remains focal not only in games without communication, but also in direct face-to-face interaction. In our coordinated divergence game, an opposition strategy retains its appeal even when a group knows the choice of the other group they want to avoid, when it is chosen by high-status leaders within the diverging group, and when it is made easier to adopt by other, previously held preferences.

Our study provides some hints about how cultural meaning is created. In contrast with previous literature which has emphasized idiosyncratic differentiation, the coordinated divergence that we have demonstrated is *social* in two ways: (a) choices are coordinated among members of the same type who choose the same choice, but also (b) they are coordinated across different types who must choose different choices. Previous work has missed this social aspect to divergence because it has emphasized individual drives to be different. The problem with idiosyncratic differentiation is that it does not lead to social meaning. Idiosyncratic differentiation is bizarre and difficult to understand. When people diverge with similar others, however, they communicate an understandable social identity and give meaning to cultural practices.

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