

DRAFT

Identity Theory and Agent-Based Modeling

Contents

Introduction.....	3
Importance of Identity.....	3
Perspectives on Identity Theory.....	6
Steph Lawler’s <i>Identity: Sociological Perspectives</i>	7
Richard Jenkins’ <i>Social Identity</i>	8
George A. Akerlof and Rachel E. Kranton’s <i>Identity Economics: How Our Identities Shape Our Work, Wages, and Well-Being</i>	13
Peter J. Burke and Jan E. Stets’ <i>Identity Theory</i>	14
Identity and Agent-Based Modeling.....	17
Representational Challenges.....	17
Idealized Identities.....	18
Heterogeneous Social Ontologies.....	18
Hierarchy and Networks Among Identities.....	18
Emotional States and Rationality.....	19
Symbolic Communication.....	19
Status, Power and Resources.....	19
Social Networks and Role Definitions.....	20
Behavioral Challenges.....	20
Deontic Logic.....	20
Role Performance and Validation.....	20
Perceptions and Adaptation.....	20
Identity Prominence, Saliency, and Commitments.....	21
Towards Improved Models of Counterinsurgency and Counterterrorism.....	21
Contextualizing Identity and Western Culture.....	21
David Kilcullen’s <i>The Accidental Guerrilla: Fighting Small Wars in the Midst of a Big One</i>	22
The Flynn Report: The Destruction of the Village Well.....	23
Audrey Kurth Cronin’s <i>How Terrorism Ends: Understanding the Decline and Demise of Terrorist Campaigns</i>	23
Decapitation.....	24
Negotiation.....	24

DRAFT

Success..... 24
Failure 25
Repression..... 25
Reorientation..... 25

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DRAFT

Introduction

Identity has posed a persistent challenge to the social sciences and modeling. It appears as a central variable in political, social, and ethnographic accounts of micro and macro-level phenomenon, yet is rarely treated as a variable in social modeling and simulation. This paper examined four current books on identity theory in order to gain insight into how experts in sociology, economics, and anthropology have theorized and attempted to model identity in their own domains. Based on these four books, this paper makes several observations on how identity theory may be incorporated into Agent-Based Models (ABMs) in order to improve the simulation of social agents in models of counterinsurgency and counterterrorism.

Importance of Identity

Counterinsurgency and counterterrorism constitute a challenge to classical state-centric and rational perspectives that have dominated security studies and international relations. As the Cold War concluded, international relations theorists were surprised by the abrupt collapse of the Soviet Union.¹ Increasingly, scholars and practitioners turned their attention away from sources of continuity that explained the persistence of the Cold War's macroscopic stability, such as arms races, military balances, nuclear deterrence and the rationalizing tendencies imposed by bureaucracy and markets in service of the state, towards micro-level sources of change, particularly the roles of ideas, beliefs, community, and the relationships between individuals and their physical and economic environments. Thus, a "renaissance" in security studies corresponded with the rising prominence of constructivism, historical sociology, and the English School in international relations theory, all of which emphasized ideas, history, social structures, and norms while conventional debates about neorealism and neoliberalism receded.²

The increasing emphasis on identity as a key feature in complex security problems is evident in a range of studies from several disciplinary perspectives. For example, Dale Eickelman and James Piscatori's study of Muslim political structures noted the importance of identity conflicts in China's western provinces where a significant Muslim population resides. Specifically, they observed that conceptions of identity shaped notions of political legitimacy and authority, creating tension between Hui Muslims in Northwest China and the Chinese government:

Hui Muslims do not differentiate between their ethnic and religious identities, whereas state authorities seek to maintain a sharp distinction between them out of fear that religious activities may contribute to political destabilization. This dispute between state authorities and community religious leaders over the

¹ John Lewis Gaddis, *The United States and the End of the Cold War: Implications, Reconsiderations, Provocations* (New York, NY: Oxford University Press, 1994); Richard Ned Lebow and Thomas Risse-Kappen, eds., *International Relations Theory at the End of the Cold War* (New York, NY: Columbia University Press, 1994); Michael W. Doyle and G. John Ikenberry, eds., *New Thinking in International Relations Theory* (Boulder, CO: Westview Press, 1997); and Ethan B. Kapstein and Michael Mastanduno, eds., *Unipolar Politics: Realism and State Strategies After the Cold War* (New York, NY: Columbia University Press, 1999).

² For discussions see Helga Haferndorn, "The Security Puzzle: Theory-Building and Discipline-Building in International Security," *International Studies Quarterly*, Vol. 35, No. 1 (March 1991), pp. 3-17; Stephen M. Walt, "The Renaissance of Security Studies," *International Studies Quarterly*, Vol. 35, No. 2 (June 1991), pp. 211-239; Alexander Wendt, *Social Theory of International Politics* (New York, NY: Cambridge University Press, 1999); Doug McAdam, Sidney Tarrow and Charles Tilly, *Dynamics of Contention* (New York, NY: Cambridge University Press, 2001); Headley Bull, *The Anarchical Society: A Study of Order in World Politics* (New York, NY: Columbia University Press, 2002); and Shibley Telhami and Michael Barnett, eds., *Identity and Foreign Policy in the Middle East* (New York, NY: Cornell University Press, 2002).

DRAFT

exclusion of the “religious” from the “political” domains is clearly expressed in the words of a local Communist party official in Yinchuan: “The Hui are allowed to maintain their ethnic customs that are influenced by Islamic traditions, but religion and ethnicity are two separate matters and should not be confused.” In effect, state and local Sufi leaders contest the limits of sacred authority.³

Likewise, Bernard Rougier placed identity formation and expression in the center of his study of the emergence of militant Islam among Palestinian camps in Lebanon:

The battle described in this book is fundamentally a battle for identity. In that sense, all the camp’s inhabitants, even the poorest, are involved in the struggle. When faced with uncertainty and vulnerability, displaced people search for something with which to identify. In this respect the camp is less a marginal area than a site of significant expression, at the intersection of local, regional, and transnational space. In this perspective, mobilization entails creating identities that modify the way individuals represent and interpret their social and political universe.⁴

While the studies noted above examined identity at the levels of local communities, Vali Nasr advanced the notion of a ‘Shia revival,’ the transnational political and social mobilization of Shia within the Islamic world, with identity:

The Shia-Sunni conflict is at once a struggle for the soul of Islam – a great war of competing theologies and conceptions of sacred history – and a manifestation of the kind of tribal wars of ethnicities and identities, so seeming archaic at times, yet so surprisingly vital, with which humanity has become wearily familiar. Faith and identity converge in this conflict, and their combined power goes a long way toward explaining why, despite the periods of coexistence, the struggle has lasted so long and retains such urgency and significance. It is not just a hoary religious dispute, a fossilized set piece from the early years of Islam’s unfolding, but a contemporary clash of identities. Theological and historical disagreements fuel it, but so do today’s concerns with power, subjugation, freedom, and equality, not to mention regional conflicts and foreign intrigues. It is, paradoxically, a very old, very modern conflict.⁵

Yet another study of Sunni-Shia relations showed the importance of history and drew attention to identity as a dynamic variable that is not fixed and changes over time, debunking the often heard dismissals of conflict resolution and state formation on the grounds that different groups have always fought one another. As Jaun Cole noted in his study of Shi’ism:

I want to underline that I do not see adherence to Shi’ism as a primordial identity, but rather as a socially constructed one into which individuals are mobilized in every generation or which they adopt for their own reasons. Shi’ites born into the faith have converted out of it Sunnism, Christianity, the Baha’i faith, secularism, and Marxism. Converts hailing from Sunnism, Hinduism, Judaism, and Christianity have adopted it. Observers once tended to see Twelver Shi’ism as a stagnant tradition mired in rigidity, but the surprise of the new academic literature on it is that Shi’ism has arguably been growing significantly not only in the past five hundred years but in the past two hundred. The Shi’ite majority of Iraq (where they are estimated to be 55 percent of the

³ Dale F. Eickelman and James Piscatori, *Muslim Politics* (Princeton, NJ: Princeton University Press, 2004), p. 59.

⁴ Bernard Rougier, *Everyday Jihad* (Cambridge, MA: Harvard University Press, 2007), p. 3.

⁵ Vali Nasr, *The Shia Revival*, p. 20.

DRAFT

population) results in large part from the conversion of Arab tribes in the south to this branch of Islam in the course of the nineteenth century.⁶

Like scholars, practitioners have also gravitated towards identity as a central component in the fight against terrorism, insurgency, state failure, and policy formulation. For example, Jerold Post's study of the psychology of terrorists notes that few members of terrorist organizations suffer from psychological disorders but are deeply motivated by matters of collective identity and their individual relationship to the larger group:

But if there is a broad range of terrorist psychologies and motivations, there are some general conclusions that contradict lay assumptions. Explanations of terrorism at the level of individual psychology are insufficient in trying to understand why people become involved in terrorism. As observed, terrorists are not depressed, severely emotionally disturbed, or crazed fanatics. It is not individual psychopathology, but group, organizational and social psychology, with a particular emphasis on "collective identity," that provides the most powerful lens through which to understand terrorist psychology and behavior. For some groups, especially nationality-separatist terrorist groups, this collective identity is established extremely early, so that from childhood on, "hatred is bred in the bone." The importance of collective identity and the processes of forming and transforming collective identities cannot be overemphasized. This fact in turn emphasizes the sociocultural context, which determines the balance between collective identity and individual identity. Terrorists have subordinated their individual identity to the collective identity, so that what serves the group, organization, or network is of primary importance.⁷

Likewise, Marc Sageman also argues that identity plays a crucial role in the formation and persistence of terrorist groups, where strong bonds to group identities overpower other concerns, such as the adherence to social norms regarding the use of violence"

... I argue for a three-prong process: social affiliation with the jihad accomplished through friendship, kinship, and discipleship; progressive intensification of beliefs and faith leading to acceptance of the global Salafi jihad ideology; and formal acceptance to the jihad through the encounter of a link to the jihad. Relative deprivation, religious predisposition, and ideological appeal are necessary but not sufficient to account for the decision to become a mujahed. Social bonds are the critical element in this process and precede ideological commitment. These bonds facilitate the process of joining the jihad through mutual emotional and social support, development of a common identity, and encouragement to adopt a new faith. All these factors are internal to the group. They are more important and relevant to the transformation of potential candidates into global mujahedin than postulated external factors, such as common hatred for an outside group. To an outsider, these invectives stand out. But for an insider, they are not what keep the group together. As in all intimate relationships, this glue, in-group love, is found inside the group. It may be more accurate to blame global Salafi terrorist activity on in-group love than out-group hate.⁸

⁶ Jaun Cole, *Sacred Space and Holy War* (New York, NY: I.B. Tauris, 2005), p. 2.

⁷ Jerrold M. Post, *The Mind of the Terrorist: The Psychology of Terrorism from the IRA to Al-Qaeda* (New York, NY: Palgrave, 2007), p. 8.

⁸ Marc Sageman, *Understanding Terror Networks* (Philadelphia, PA: University of Pennsylvania Press, 2004), p. 135.

DRAFT

Ashraf Ghani and Clare Lockhart noted that identity is not always a source of conflict but is also the outcome of successful state formation and development, which fosters cohesion between communities and binds them to the central government through standardized governing practices and expectations:

Individual states differ significantly in their administrative practices. What is common within successful systems, however, is the uniformity of a particular set of rules within an individual state – and tight adherence to them over time. Frontiers and border points are strong testing grounds of this uniformity across a state’s territory. The greater the degree to which a frontier location conforms more broadly to a country’s administrative practices, the higher the nation’s degree of uniformity...

In developed countries, this standardization of practice has led to predictability, which generates trust in the impartial administration of the rules. Change takes place through routine, continuity, and well-known practices. This uniformity of rules and regulations throughout a country is vital to the formation of a distinctive identity for its citizens. Meanwhile, the emergence of honest, effective, impartial bureaucracies has helped to establish an environment for growth. In some countries, the bureaucracy has become quite adept at assuming new tasks and generating the specialized knowledge and routines necessary for performing them.⁹

Thus, identity is visible at all social scales, from the individual, the social group, community, state, and international system. Likewise, identity is malleable and dynamic, contingent on the particular history of individuals, communities and states, and is both an input that shapes and motivates individual and group behavior, and an output, which results from the reach and administration of the state and other institutions that structure people’s lives.

Perspectives on Identity Theory

This section summarizes the perspectives on identity found in four recent texts on identity theory and its application. Each book was published in the last three years and presents alternative views on social identity and its relationship with individual and collective behavior.¹⁰ The four books are:

- Steph Lawler, *Identity: Sociological Perspectives*, Polity, 2008;
- Richard Jenkins, *Social Identity* (Third Edition), Routledge, 2008;
- George A. Akerlof and Rachel E. Kranton, *Identity Economics: How Our Identities Shape Our Work, Wages, and Well-Being*, Princeton University Press, 2010;
- Peter J. Burke and Jan E. Stets, *Identity Theory*, Oxford University Press, 2009.

Lawler and Jenkins each provide a theoretical examination of social identity, creating a conceptual framework for situating identity as a lynchpin between the scales of the social world: from the individual to the group, and the group to society at large, particularly the state. These texts are remarkably consistent, only disagreeing on a small number of issues the most notable is the role and utility of psychoanalysis in the scientific study of social behaviors. By comparison, Akerlof and Kranton’s *Identity Economics* and Burke and Stet’s *Identity Theory* provide models that are capable of providing predictions of individual or groups behavior, or exploring individual or groups responses to given social situations.

⁹ Ashraf Ghani and Clare Lockhart, *Fixing Failed States: A Framework for Rebuilding a Fractured World* (New York, NY: Oxford University Press, 2009), p. 132.

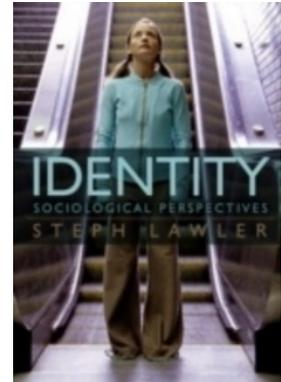
¹⁰ One book by Richard Jenkins is older but was recently revised.

DRAFT

These models diverge greatly with respect to their simplicity or complexity, but each advocates that they provide a bridge between different social science disciplines.

Steph Lawler's *Identity: Sociological Perspectives*

Lawler's central argument regarding identity is that it is socially produced by interactions and not inherent within the individual. She specifically challenges the notion that identity is divided between personal or private identities and social or public identities. Lawler argues that neither personal or social identities can exist without the other, and therefore it is more appropriate to think about recursive processes of identification that continuously operate and update – a person is always in the process of becoming their identities and do so by interacting with others.



For Lawler, identities form around collective stories and are acted out via performance. Thus, much of her work maintains an allusion to theater and drama as a way of organizing and understanding social interaction. Identities are composed of personal and collective narratives of loss, pain, and suffering, and are constructed out of historical interpretation and appropriation of cultural symbols. According to Lawler, identity narratives have a particular design, and include five features:

- Identity narratives are social products that explain a particular outcome or set of conditions and are not factual or scientific;
- Narratives obscure the distinction between agency and structure by creating a deterministic story where the outcome being explained is the only possible conclusion given the story's events and actors;
- Narratives examine differences and make references to, and representations of, actual lives where the actors are play a role in the story, rather than the story being about the actors, i.e. the narrative is about the story, not the actors in it;
- Narratives are uneven with respect to their treatment of time and subjects, devoting greater attention to those aspect of greater narrative significance, and do not maintain temporal realism;
- Narratives are intertextual and embedded in a network of references to other narratives, creating continuity and juxtaposition between them, and linking personal narratives with larger collective narratives.

Identity narratives are stories of personal and collective pain, suffering, and victimization, where individuals define themselves and groups bond in the face of obstacles, persecution, and adversaries. As a result, groups develop barriers to entry based on the extent or types of suffering one has endured, with some identities achieving special privileged status that cannot be falsely claimed without social or legal penalty, e.g. Holocaust survivor.

Lawler argues that because narratives focus on stories of victimhood and injustice, identities are fundamentally oppositional and comparative – they establish the boundaries between individuals and groups, and the boundaries between groups. For every identity, distinctions and a set of categories exist that correspond to what the identity is not. This means that identities from the same categorical set cannot be combined, and that new identities with new modes of comparison must be invented if two opposed groups are going to be combined, and a new oppositional group must emerge. The oppositional aspect of social identities also means that the emergence of a global, all inclusive identity is not attainable, because it lacks any reference set of what it is not. Moreover, individuals cannot claim membership to all groups, yet their possession of multiple identities, embedded in different sets, is a symbol of their robustness and cultural capital.

DRAFT

In addition to considering the content of identities, Lawler also considers how they operate individually and collectively. From an individual perspective, identities are performed and people become what they act out. Thus, rather than differentiate between a public and private identity or sense of self, Lawler continues with her dramatic conceptualization by arguing that people perform on front-stage and back-stage, but they are always on-stage. Additionally, performances occur when individuals don 'masks' – the features and roles that are ascribed to identities. Thus, our identities are realized only by being performed, but performance is not identification. As in drama, the audience matters and judges individual performances – where those that do not conform to the standards or the expectations of the identity are deemed ineffective and insincere or lacking in authenticity. Therefore, identities are inherently political – dealing with differences and power – because they are divisive and establish boundaries between group members and must be validated by audiences that possess the power to determine if an individual's performance is sincere or legitimate based on the observers' assessment of conformity to the idealized standards of the role the performer is playing.

Lawler notes that identities and governance are inherently intertwined. Classical theories of the state assume juridical power, where citizens obey laws under the fear of punishment if they are observed acting in a deviant fashion. Such a form of power is based on deterrence and expensive, and therefore difficult to extend. In this conception of governance, it is assumed that the interests of the state and the people are opposed and therefore only the threat of coercion can hold the state together. Identities enable the extension of the state's resources by allowing for individuals and groups to become self-policing and communities to be self-sanctioning. By promoting identities that promote behaviors and roles that are consistent with the desires of governance, such as a 'good citizen,' individuals can regulate their individual behavior and local communities can police themselves, allowing the state to deploy its resources in the pursuit of other objectives.

Lawler introduces five important aspects of operationalized identities: habitus, doxic beliefs, cultural capital, narratives of decline, and 'homo sacer.' Habitus are those outward mannerisms and appearances that signify membership in a group. These include styles of dress and personal ornamentation, such as tattoos, piercings or jewelry, body language, speech patterns, etc. Habitus are learned, but become ingrained and natural to group members. Doxic beliefs are truths held by group members that are assumed to be universally true. Doxic beliefs constitute the core set of beliefs from which actions are derived and cannot be negotiated or changed as long as the identity is conserved. Cultural capital is attained and displayed by showing mastery over the habitus and doxic beliefs of identities. This mastery is demonstrated by familiarity with the cultural artifacts and history of a group from the perspective of the group's collective narrative, and being able to perform group identities in an authentic way. Fourth, group cohesion is maintained by narratives of decline that maintain a consistent structure in which the group's survival is at risk and is under threat as a result of its members deviating from principles and practices that had served it well in the past. These narratives are supplemented by negative judgments of other groups that are criticized for their habitus, which reflect their ignorance and backwardness, rather than their actions – identity conflicts focus on who the adversary is, not what they do. Finally, groups may identify a rival identity that represents homo sacer – an identity that is not worthy of civic recognition and can be killed with impunity. Homo sacer constitutes an enemy of society and is not worthy of human or equal legal status or moral recognition.

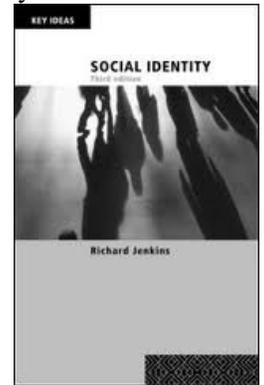
Richard Jenkins' *Social Identity*

Jenkins' examination of social identity is consistent with Lawler, although he places a greater emphasis on the distinction between categorization and group identity as alternative forms of collective identities. Jenkins, like Lawler, is highly critical of the notion that identities are individually determined and private,

DRAFT

personal and hidden from public view. Instead, he emphasizes that individual identities are only sensible in a social context and cannot exist in a vacuum.

Jenkins notes that identities have come to be a central concern to policy and academic researchers, being a topic that spans and unifies different disciplines. Identity links levels of analysis in social systems, relating individuals to larger groups, both at the level of kinship networks and family or peer groups, all the way up to large scale, abstract identities such as race, class, gender, and nationality. Likewise, globalization and the end of the Cold War have revived identity, particularly religion, as a central consideration in international relations and security, and that globalization is short-hand for a complex array of changes that have occurred in the late 20th and early 21st centuries that have simultaneously revealed the diversity of social life and customs on the planet, while creating greater demands and need for group membership. Jenkins concludes that what is absent is a generic understanding of how identity works that is grounded in human nature and capable of capturing the constructed and contingent elements of social identities.



Jenkins notes that theorists should be cautious, however, in explaining the world's events as functions of interacting identities. He notes that identities do affect behavior, but they are not the cause of behavior – they are theoretical constructs in the minds of the actors and researchers. Behavior is performed by embodied individuals for whom identities may frame or constrain their actions, but identities do not compel action. Therefore, identity research and models should be used frame the ways in which researchers approach problems, but the extent to which an outcome is explained by the identities of the individuals and groups involved should be taken as an empirical question, e.g. strategic interaction and perceptions of interest and survival may be just as viable or even dominate the decision-making of national elites when considering whether or not to initiate a war or enter into a treaty or trade agreement.¹¹

Jenkins argues that theories of identity must explain outcomes at multiple scales, individual and group, and must also explain the treatment and promotion of similarity and difference. As with Lawler, Jenkins notes that identities are always incomplete, developing and constantly being performed. Decision-making within an identity based framework is fundamentally strategic and recursive – identity based reasoning depends on knowing who we are, knowing who others are, others knowing who we are, us knowing who others think we are, etc. This strategic interaction is driven by a mapping that people possess linking individuals and groups, and dictates the expectations of how people should behave in a given context. However, it is always the individual that is the agent of action, calling into question the feasibility of larger collectives as legitimate units of analysis, e.g. ethnicities or religions.

Jenkins argues that identity involves comparisons of similarity and difference, and they are always active and must be established and reestablished continually. All identities are social and constructed out of human experience and perceptions, relying on interactions and discourses of agreement and disagreement, convention and innovation, and communication and negotiation. Jenkins notes that processes of identification are continual and that some categories or identities can only be achieved after death, e.g. sainthood and martyrdom.

Identities also are grounded in idealizations and simplifications that are cognitive devices that make the world apparently predictable. Stereotypes are essential to human reasoning, representing highly compact

¹¹ Importantly, the dominant approaches to the study of international security, broadly referred to as realism explicitly argue that states are motivated by survival as a political unit and therefore factors such as culture, political organization or past history do not matter. For notable examples see Kenneth N. Waltz, *Theory of International Politics* (Reading, MA: McGraw-Hill, 1979) and John J. Mearsheimer, *The Tragedy of Great Power Politics* (New York, NY: W. W. Norton & company, 2001).

DRAFT

collections of symbols and representations of categories, including their traits and expected behaviors that simultaneously establish the similarities of members in each category and the differences between categories. These differences may be minor, or non-existent in any objective sense, but as long as individuals believe them to be true, a 'minimal group' may form and promote very strong differences in in-group and out-group behavior as numerous experiments have shown.

Jenkins consistently discusses the importance of the embodied individual – the fact that people experience the world in time and place through their physical bodies. While interactional locations may be virtual, e.g. online, they are always situated. Moreover, our bodies are the basis upon which our first primary identities are ascribed and therefore exert a powerful force over how other identities are acquired. For example, gender is determined at birth, and one's environment is immediately altered to reflect that identity, e.g. colors of clothing and paint, styles of toys and modes of acceptable or appropriate play, etc.

Jenkins argues that two types of collective identities exist – groups and categories. Group identification requires members to believe that they have something in common with one another, and members are self-conscious of these similarities. Thus, group members self-select and self-identify, and accept the differences between members and non-members that a group identity promotes. Groups develop symbolic and behavioral markers, i.e. habitus, which allow members to identify other members despite the lack of any prior relationship or knowledge of each other.

In contrast to groups, categories are imposed by individuals or groups onto others, meaning that their members may lack any sense of shared identities or common attributes – those who have been categorized may be assigned identities of which they are unaware. Categories lack self-consciousness and are unable to mobilize resources or engage in collective action unless members internalize the ontological framework that has been imposed on them, transforming from a category to group.

Categorization is particularly powerful for Jenkins because it is inherently political, particularly when sanctions or benefits attach to categorical schemes. For example, a national census categorizes respondents based on a scheme that matters to the state, but may lack salience to respondents. Thus, categorization is an act of power that organizes society by defining its ontological structure and the relative access to resources and the rights, privileges, and sanctions each category experiences. Jenkins' treatment of categorization is important because it compels researchers to consider the full range of identities individuals possess, including those that lack meaning to the individual or even awareness of.

Groups form communities that are locally inclusive and predicated on the creation of a fictitious but symbolic umbrella of solidarity. Despite being imagined, communities are real and not imaginary – they result in a sense that 'we do things differently here' when compared with others who reside 'over there.' Communities are maintained by shared symbols and rituals, and their identities and customs are a strategic resource that are appealed to in order to justify actions that are taken 'for the good of the community.' Communities are also ideological because their conventions and traditions transform from an empirical description of how the local community behaves and solves problems to how the community should behave and solve problems. Jenkins noted that communities are reflexive, and their boundaries become sharper and more distinct as the pressure for change increases. Thus, calls for change will result in community members increasingly emphasizing the importance of differences and harden the conservative positions of members.

Power and interest reside at the core of communities and the categories they employ. How one defines themselves has a direct bearing on how they perceive their interests, while how one perceives their interests has a direct bearing on how one defines their identity and their social roles. This point is significant because it suggests the limited power of inducing behavior based on providing incentives, and that such interventions must be accompanied by efforts to alter the perceptions that individuals hold of

DRAFT

themselves and others. Group identities transform individuals, who initially behave according to the group standard due to the compellence and fear of punishment, but later identify with the group's ideals, to finally internalize the group's identity when action according to ideals ceases to be conscious or open to strategic considerations. The result of persistent and consistent behavior by groups generates institutions that are patterns of behavior that establish 'the way things are done' and has intersubjective relevance to people that will employ the heuristic as a standard against which behavior can be measured. Ironically, the development of institutions that constrain the options available to group members also promote innovation by allowing for focused deliberation in a handful of problem areas. Thus communities may be overly regulated if their institutional commitments are overly broad so that no innovation is possible, or be unable to develop stable identities if institutions are so lacking that members cannot focus their attention on any particular problem.

Groups and communities project solidarity when challenged by outsiders, despite the fact that groups rely on the existence of internal differentiation and differences in order to survive. Indeed, Jenkins notes that groups form organizations in order to affect the world around them through categorization, the mobilization of resources, the projection of power in the form of rewards or sanctions, etc. Moreover, group solidarity is maintained and promoted by the pursuit of status and collective self-esteem and accomplishment.

Although solidarity emboldens groups to confront other groups in an ecological/political competition for resources and status, their internal organization, which thrives on the differences between their members, is the basis for their success or failure. Jenkins notes that organizations always possess members and that members work towards advancing the goals of the organization. Organizations are bounded networks that maintain processes and criteria for identifying and recruiting new members, and an internal division of labor and specialization of tasks and skills, and patterns of decision-making regarding resource mobilization and deployment and task allocation. Organizations perform for collective action on the part of the members to affect the world – usually non-members, and therefore reproduce the identities of members through recruitment and non-members via categorization. Importantly, organizations exist independent of their membership, and often must recruit new members in order fill vacant positions.

Jenkins notes that entrance into organizations occur in two distinct ways. Organizations predicated on ascriptive categories, for which people are nominally assigned based on their attributes, such as religion or ethnicity, occur via public ritual or ordeal that marks the symbolic transition to new positions within the community, e.g. a Bar Mitzvah or Communion. By comparison, entrance into groups for which membership is not ascriptive, but selective occurs predominantly through interviews with a particular set of structural properties: interviews have two sides, a hierarchical situation where members are in positions of authority over non-members, the purpose of the interview is to determine the allocation of the organization's resources or penalties to the non-member, e.g. a job offer or expulsion, the decision does not need to be made on the spot, and interviews are generally private. Finally, Jenkins notes that organizational membership is often mutually exclusive, where joining one organization may require leaving another.

Jenkins makes an important point about group identity, membership and deviance. Because group membership is never absolute and group membership influences individual opportunities and access to resources, those on the fringes face the greatest incentive to conform to the identity standards of the group and secure their membership position. Alternatively, group members with the greatest control over resources and most secure positions are also those who can afford to deviate from the identity's behavioral standards. Thus, a behavioral paradox exists in which group members who best exemplify the identity standards are the most likely to engage in deviant behavior, while those whose membership is suspect are the most likely to conform.

DRAFT

The establishment of groups and categories leads to important considerations about the labels and experiences of groups within the structure of society. Jenkins notes that identities are both nominal and virtual. Nominal identities are labels that refer to the category or classification of the identity. Common nominal identities may exist in every society on the planet, e.g. being a Muslim or a woman, but the experiences and meaning of being Muslim or a woman may vary from community to community. Identities may also be virtual, where individuals and groups may have different names but common experiences despite their separation by time and space. The notion of a virtual identity is significant, because it provides a means for comparing social experiences, structure and status, e.g. European peasants, Russian Serfs and Mexican Peons all share virtual identities with respect to property rights, agrarian labor, and relations with property owning authorities.

Jenkins theorizes identity by considering the order in which identities are acquired. He notes that the earliest identities are achieved at birth – humanness and gender. Humanness is acquired before gender, but it is a locally determined identity based on the community's understanding of what it means to be human. In each society, such definitions characterize when infanticide is or is not acceptable, e.g. whether or not any noticeable defect exists regarding mental or physical capabilities. Gender is also ascribed at birth, and is therefore a primary identity. Gender is a global identity, not requiring a sense of self-consciousness on the part of its members. By comparison, other identities, such as kinship or ethnicity are local and operate only in cases where groups are self-conscious and value the assignment and recruitment of individuals into the group.

After gender, people acquire other primary identities the most prominent of which is the kin group. Kin groups operate like organizations, possessing a locally relevant internal structure that places the individual into a historical context and network of familial relations, while globally kin identities lose their meaning and only differentiate members from non-members.

After kin, ethnicities may be assigned. Importantly, ethnicity is a local variable, and is determined based on their community's ontological scheme for categorization, but ethnicities do constitute one of the most stable and slow moving categories of identity. Ethnic identities are folk classifications, ascriptions and self-ascriptions that label society's members. Jenkins argues that because of their constructed status, ethnicities should not be studied based on their 'content,' but should be understood as a process that is designed to produce differences between people and recruit new members. Importantly, ethnicities provide idealizations that prescribe the options available to members, delimiting the set of acceptable identities that members can achieve later in life. Therefore, as a primary identity, ethnicity (and other primary identities such as class or religion) has important development consequences by shaping self-perceptions and self-consciousness of what is acceptable, desirable or forbidden later in life.

Finally, Jenkins argues that the formation of peer groups constitutes the first opportunity for individuals to develop their own identities beyond what is ascribed to them by authorities and learn to be political. Whereas primary identities are assigned by others, people negotiate their way into friendships and learn critical skills of self-representation and self-presentation. Peer groups are political because they incorporate status and rank, and their hierarchical status must be negotiated in order to gain entry and maintain membership. From these early experiences, children learn the basic social skills that they will employ as adults as they take a more active and self-selective role in defining their identities.

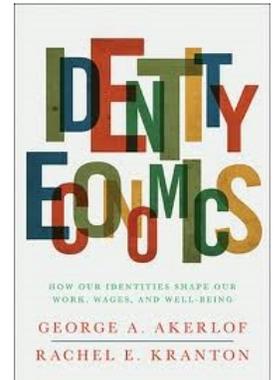
Jenkins framework for identity acquisition from birth is significant because it provides a rationale for understanding how individuals may organize their multitude of identities into those that are easily abandoned and those that are central and difficult to change. By starting from birth, Jenkins argues that infants and children lack any capacity to reject the imposition of identities ascribed to them from parents or other authorities. As a result, those identities attach with great power because the individual is unable to resist their attachment and because the power differential between those being categorized and those

DRAFT

doing the categorization is so great. These early identities are the most difficult to alter later in life, and in general those that are accepted uncritically and those that are assigned from authorities are the identities that will be internalized to the greatest extent.

George A. Akerlof and Rachel E. Kranton's *Identity Economics: How Our Identities Shape Our Work, Wages, and Well-Being*

Akerlof and Kranton's examination of identity in economics provides a simple and parsimonious framework for considering the effects of identity on economic behavior and social life. Their framework is highly stylized given the complex theories of identity developed by Lawler and Jenkins, and therefore their work should be viewed as an initial or minimal model of identity and agent behavior. Moreover, it is important to consider the disciplinary distinctions between Lawler and Jenkins, a sociologist and anthropologist respectively, and Akerlof and Kranton, two economists, in evaluating their respective treatment of identity.



Akerlof and Kranton place their emphasis on identity into the context of economics. They note that while identity has a long history in other disciplines such as sociology and anthropology, its inclusion in economics is new. They note that economics has traditionally focused on the individual agent, and assumed that its individual, atomistic preferences were the only or dominant sources of behavior, therefore eschewing questions of social influence or transforming them into matters of personal taste. Fifty years ago economics was formalized with the introduction of 'homo economicus' – the individualistic, utility maximizing actor. Gary Becker extended the application of economics to social life by expanding utility functions to incorporate non-pecuniary tastes, such as preferences for racial or gender discrimination or social status. This extension assumed that people followed social norms for fear of reprisals and punishment, rather than the internalization of norms or the perceived lack of choices as a result of socialization. Akerlof and Kranton note that economics has since incorporated game theory and behavioral economics to consider increasingly heterogeneity among agents and limits on their rationality, but none of the discipline's extensions have accounted for group behavior or context sensitive preferences or utilities that lie at the heart of identity economics.

Identity economics presents a modeling framework for explaining why real-world behaviors deviate so strongly from expected economic predictions with respect to the persistence of social inequalities. They note that people's preferences are not fixed and that matters of identity involve choices of great economic and social importance – identity matters are not normal economic choices such as preferring apples to bananas. Instead, identities deal with the consequences and power of ideas as they affect behavior and the perceptions of choices available to agents in a given context. Akerlof and Kranton stress the significance of context as a missing but essential element of economics by noting that determinations of right and wrong, fair and cruel depend on who is doing what to or with whom.

Akerlof and Kranton note that agents enter the economic marketplace with existing preferences and ideas about their role, status, obligations, etc. Thus, identities constitute ontological priors with respect to economic activities, providing insight into where and how preferences develop in the first place. People divide themselves into social categories with particular norms that dictate appropriate behavior for dealing with in-group and out-group members.

Akerlof and Kranton's economic model is simple and parsimonious, but powerful in its ability to illuminate social realities that appear sub-optimal given traditional economics' individualistic expectations. Specifically, they treat identity as a shorthand for the individual's identity, the norms by which they adhere, and the existing social categories. They apply this basic framework to model a variety

DRAFT

of situations that range from worker output, to schooling and career choices for gendered agents, to race and the persistence of minority poverty. In each case, they develop a three stage model:

- First, specify the tastes and preferences of agents;
- Second, identify the social categories that agents belong to and specify the utility gains and losses with respect to following or violating the norms for each category;
- Finally, specify any possible externalities that result from adhering to, or violating norms at the collective level of analysis, e.g. the emergence of discriminatory policies that result from marking a job as belonging to one social group or another.

From this simple model, social behaviors emerge that are difficult to explain from purely individualistic models.

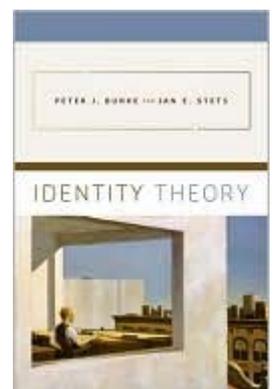
Akerlof and Kranton's models identify the importance of labeling and oppositional identification. They argue that social relations become embedded and persistent when behaviors become group norms. Once a label attaches to a particular job or mode of conduct, it is difficult to restructure society along new grounds because social groups may be unwilling to occupy roles that they consider unsuitable for their identity to perform, e.g. nursing is labeled a 'female' job making it difficult to attract male member to the profession. Likewise, oppositional identification occurs when groups develop standards of behavior that are deliberately opposed to what other reference groups do. This can be especially destructive to the group because it often promotes self-destructive behaviors as an expression of identity, with lasting and detrimental consequences, e.g. teen pregnancy, smoking, and drop-out rates.

Akerlof's and Kranton's model of identity is highly simplified and lacks the nuance that Lawler and Jenkins go to great effort to develop. However, their modeling approach allows for the formalization and simple but effective extension of many existing utility seeing models that are already employed by analysts. While they make no commentary as to where identities come from or how they change, they do provide mechanisms for dealing with existing social categories in a fashion that is consistent with larger, more complex treatments of identification, and therefore constitute a viable way to extend models that are not explicitly built to explore identity but need to consider its effects.

Peter J. Burke and Jan E. Stets' *Identity Theory*

Burke and Stets's *Identity Theory* constitutes the most complex and operationalized theory of identity of the four books examined in this study. Their analysis is based on several applications to social situations, which include techniques for gathering data and testing specific behavioral and emotional responses to social situations and challenges.

Burke and Stets develop many of the concepts advanced by Lawler and Jenkins, and introduce several new ones that specify micro-level processes that occur within individuals. Their theory of identity rests upon three significant claims that distinguish their work. First, they introduce an ontological framework that transforms humans into collections of identities, while treating the identities as the agents. This is analogous to biological models of evolution that focus on the gene as the unit of analysis and agency, rather than the organism itself, e.g. Richard Dawkin's *The Selfish Gene*.¹² Second, they envision the link between identities and behavior as a result of a hierarchical network of identities operating as a control system over individual behavior that regulates environmental perceptions until gaps between identity ideals and perceptions are eliminated in same way that a thermostat operates to regulate temperature. Finally, the core behavioral aspect of identities is the pursuit of validation or affirmation –



¹² Richard Dawkins, *The Selfish Gene* (New York, NY: Oxford University Press, 2006).

DRAFT

where individuals interact socially in order to have their self-images or self-perceptions acknowledged by others.

Burke and Stets start by acknowledging the importance how human agents make decisions and interact. They argue that interactions between individuals give rise to social structures, while social structures pattern relations between individuals. In both cases, identities regulate the ranges of roles that individuals can play in their interactions. Most importantly, Burke and Stets note that changes in agent decisionmaking would produce different kinds of societies, and therefore different identities would emerge and operate. For example, a world of rational agents would produce different social structures and organizations than a world constructed from boundedly rational agents that must cope with missing information, deception, emotion, etc. For Burke and Stets, cognition, rationality, social structure and identities are tightly coupled.

Burke and Stets define identities as the bridge between structure and agency. Identities maintain patterns of relations between individuals in society by defining roles and expectations, while simultaneously allowing for personal interpretation, expression, and improvisation. Identities are shared sets of meanings that define who one is when they are occupying or performing a social role, are members in a group, or make claims of individuality and uniqueness. As with other theories, Burke and Stets argue that identities simultaneously account for similarity and difference between individuals.

A distinguishing feature of Burke and Stets is their treatment of social structure as highly stable and persistent. While structures may change overtime, thus allowing for innovation and increasing complexity and differentiation of identities, they are impressed and emphasize the consistency with which identities and their prescriptive roles and shared meanings remain unaltered.

Individuals possess many identities, and identities possess many individuals. This network structure defines the individual and society. Within the individual, networks of identities form hierarchies of prominent and salient identities. Alternatively, networks of identities within society structure the deployment of resources and patterns of interactions between identities and counteridentities. Thus, social structures can be defined by abstract networks of identities.

Burke and Stets differentiate between prominent and salient identities and have created an important theoretical innovation that situates individuals into a social context that places personal self-identification at odds with group roles and needs. Prominent identities are those roles that are of greatest importance to the individual and what they desire to be. By comparison, salient identities are those roles that the individual feels compelled to perform given the needs of those around them. Thus, conflicts may exist between those roles that the individual desires to play, and those that the individual is compelled to play given their responsibilities. They argue that such conflicts can be measured by the individual's commitment to particular roles, and the costs they are willing to incur to their network of interactions based on deviating from their expected identities. They note that commitment costs may be calculated in different ways: the loss of social ties to others (extensive or quantity of links), and the loss of important relationships to others (intensive or quality of links). Importantly, Burke and Stets's notion of commitments is linked to social networks and ties, externalizing the hierarchy of identities within the individual to the structure of relations around them.

The socially embedded individual seeks confirmation of their identities through role performances and feedback. Importantly, the control model of identity constitutes a cybernetic system that is composed of four essential parts. First, the individual possess an identity standard, a set of meanings and ideals that serves as a model against which their perceptions and self-perceptions are compared. Second, the individual possess means for perceiving their environment and gathering information about the social situations in which they find themselves. Third, individuals possess processes for comparing perceptions

DRAFT

with identity standards or ideals. Fourth, individuals have ways of behaving to change social situations to reduce the gaps between perceptions and ideals.

Burke and Stets' argument that actions target the individual's perceptions, not the situation itself is an essential aspect of their theory. The existence of significant differences between perceptions and idealizations results in the search for alternative frames until the idealized identity model can be confirmed. The consequences of this argument is profound, because it means that individuals with strong commitments to particular beliefs or roles may invent new realities in order to align their perceptions with desires, creating adaptive and powerful barriers to changing social situations. For example, if Iranian diplomats are committed to identity standards that place them in opposition to Israeli and US diplomats, then cooperative actions on the part of Israeli and US diplomats may be reframed and interpreted as acts of aggression by Iranian diplomats as new perceptual frames are invented that allow for the continuation of the oppositional identity standard.

Identity verification affects behavior as well as perceptions, but always with the purpose of adjusting perceptions. For example, Burke and Stets cite experimental evidence that examined how dominant and submissive individuals responded to feedback that they were behaving in ways that were inconsistent with their self-images. When a self-described dominant individual was informed that they were submissive, their response was to become more aggressive in their social interactions until their dominant status was confirmed. Alternatively, when self-described submissive individuals were told that they were acting in a dominant fashion, they became increasingly passive and deferential to other group members until their submissive status was confirmed.

Identity confirmation as the basis of behavior has significant implications for social interaction. Burke and Stets note the definition of self-esteem as a function of accomplishments over ambitions. This construction is important because it reveals the extent to which highly ambitious individuals, regardless of their achievements may never feel as if their identities have been validated, while others may be content with most modest of achievements.

Confirmation seeking behaviors structure the patterns of interactions between individuals as they act out their identities. Such interactions are not zero-sum and may be mutually reinforcing despite the fact that they are conflictual. For example, two individuals that seek to establish themselves as tough and resolute may achieve mutual identity-verification despite the fact that their actions towards one another are non-cooperative. Mutualism and conflict exist in the context of recognition of one another's identities, not in their actions towards one another. Just as mutual antagonisms may serve the validation needs of competitors, the inability to discipline and sanction an individual who believes that their identity is deviant may create greater conflict and frustration than forgiveness and acceptance.

Burke and Stets seek to operationalize their theory of identity verification by employing affect control theory that measures when a situation will be consequential to individuals and motivate strong identity confirming behaviors. Affect control theory requires three measurements: evaluation (is the situation good or bad?), potency (is the situation of strong or weak importance?), and activity (does the situation warrant an active or passive response?). Each variable is measured on a scale of [-4, 4] with zero being entirely neutral. Those situations with higher magnitude scores are those that are most likely to trigger behaviors and strategic actions intended to bring the immediate situation in harmony with the long-term idealizations of the individual.

As with other theorists, Burke and Stets consider resources to be an essential aspect of identity. They argue that resources may be immediate or potential and only accessible in the future. Immediate resources are physical and tangible, and their employment alters the balance of power between individuals when deployed. Potential resources involve the manipulation and alteration of symbols that

DRAFT

redefine role expectations and restructure future interactions. Burke and Stets note that high status individuals with access to resources are more likely to have their identities validated in social interactions than low status individuals with fewer resources.

Finally, Burke and Stets consider the importance of disruption to identity confirming feedback loops. They argue that stress results from disruptions to identity performance, causing emotional stress and increased efforts to reestablish and confirm prominent and salient identities. Disruptions to identity validation occur in four different types. Broken loop stress occurs when the feedback processes are interrupted and people receive no feedback from their efforts to act out their identities. Interference occurs when alternative identities within individuals make incompatible demands on their performances creating stress that result from cognitive dissonance. Over-controlled identities create stress by constraining behavior in such a way that individuals cannot meet the identity standards or negotiate the gaps between the identity's idealization and actual behavior. Finally, episodic disruptions occur when identities are difficult and stressful to perform, and therefore difficult to turn-on or turn-off on command, e.g. police-officer or soldier. In such cases, transitions between identities create stress.

Identity and Agent-Based Modeling

The preceding discussion of identity theories and models should make it clear that the treatment and representation of individual identities in many Agent-Based Models (ABMs) are deficient in many ways. While ABMs are particularly adept at exploiting differences between agents and situating interactions in a social context, the extent to which the methodological potential of ABM is exploited for the purposes of exploring identity development and dynamics. Identity theory, in its various forms establishes a set of behavioral or representational criteria and considerations for ABMs in which identity plays an important role. Major challenges to endogenizing identities in ABM include:

- Representational Challenges:
 - Idealized identities
 - Heterogeneous social ontologies
 - Hierarchy and networks among identities
 - Emotional states and rationality
 - Symbolic communication
 - Status, power and resources
 - Social networks and role definitions
- Behavioral Challenges:
 - Deontic logic
 - Role performance and validation
 - Perceptions and adaptation
 - Identity prominence, salience, and commitments

Representational Challenges

The modeling of identity presents a significant challenge to the internal architecture of individual agents and the ways in which their interactions are instrumented and structured. Representational choices enable or disable certain behavioral options, whether as a result of actively engineering particular rules or creating a free and expressive state space that allows for emergent properties to occur and vary depending on initial conditions and other model parameters.

DRAFT

Idealized Identities

Identities are models of behavior that prescribe the roles that individuals should play in a given context. The basis of identity-based behavior is not the maximization of utility, but to achieve conformity to an externalized and symbolic representation of an idealized or model person. Identified agents must therefore possess a mechanism for generating, storing, referencing, and comparing their actions or opportunities for actions with an idealized version of the identity or identities that they are seeking to emulate. Such behavioral motivations (discussed below) can only be enabled if the model possesses the appropriate and necessary references. Moreover, an idealized model with dynamic identities would allow each agent to possess its own evolving idealizations whose distances can be compared in order to assess the diversity and disparity of ideals for given social categories, which would also be locally determined and potentially inconsistent.

Heterogeneous Social Ontologies

One of the most important and powerful aspects of identity is that it operates at individual and collective levels. Individuals maintain the ability to classify and organize others in the environment, and each individual may not share the same classification scheme. Identity based ABMs must account for the fact that interacting agents may not agree upon who is who. Thus, agents should possess local and unique information as to how they self-identify and the groups that they believe they are members of, and a classification scheme that they can apply to other agents in the system. These schemes should be heterogeneous and result in context-based behaviors based on how agents categorize others. Thus interactions between identifying agents occur across the following boundaries:

Agent A interact with A's categorization of Agent B; B interacts with B's categorization of A

A may self-identify differently than B categorizes A resulting in disagreements that must be managed because of the generation of behaviors that fail to meet one or both's expectations, i.e. A may behave differently than B expects, resulting in the need for B to alter its own behavior towards A in order make A conform to its categorical standard, update its categorization of A, or even develop a new categorical scheme.

Hierarchy and Networks Among Identities

It is commonly understood that agents possess multiple identities that are often represented as attributes, e.g. ethnicity, religion, nationality, etc. However, this standard attribute-based representation creates problems with respect to identity activation, prominence and salience. Certainly the most abstract and broad categories of humanness, gender, kin, religion, ethnicity and nationality are all achieved at birth and childhood, and are therefore considered primary, while those acquired later in life are secondary. The problem is designing an agent representation that can capture the internal arrangements of primary and secondary identities within individuals. Moreover, two potential structures exist in which one establishes the prominence of different identities to the individuals, and the other captures the salience of those identities to the individual. These structures would need to be amenable to feedback from other agents, elevating the prominence of those identities that receive the highest levels of validation by others, while elevating the salience of identities whose roles the agents spends the most time performing.

An alternative representational scheme would follow Burke and States in a more literal fashion, turning individuals into containers of identities, where the identities are the agents that cooperate and compete with one another for prominence and salience based on which receive the greatest positive feedback and spend the most time operational respectively.

In either case, collections of identities would need to represent networks, where links between particular identities indicates the extent of shared meaning, simultaneous activation, compatible roles, and other similarities. Importantly, this representation is responsive to the endogenous dynamics of the model and

DRAFT

individual experiences, allowing prominence and salience to change based on the life-history of the individual over the course of the simulation.

Emotional States and Rationality

Burke and Stets argued that non-rational aspects of identity play a significant role in social behavior. They note that individuals seek confirmation of their self-images via the performance of identity roles and desire smooth, uninterrupted feedback loops when activating and performing identity roles. When identities are not confirmed, or feedback loops are disrupted agents experience stress and negative emotions. While there are many ways to consider the effects of emotion and stress the important representational issue is that agents should possess sets of emotions or emotional states that affect their search for identities and roles to perform, or the ability to intensify the strengths of their behaviors when frustrated by the lack of confirmation of their performances.

A secondary aspect of emotion and agent representation is that agent behaviors are regarded as non-rational, where behaviors are selected based criteria other than rational calculations. Only Akerlof and Kranton make an effort to sustain the representation of agents as rational, largely based on the ‘as if’ assumption that rational outcomes result from rational and non-rational processes, therefore it is not necessary to model the micro-scale deviations from rationality with respect to identity choices. However, Akerlof and Kranton’s treatment of identity is both parsimonious and limited with respect to identity dynamics. Their modeling deals with the outcomes of identity based interactions, but treat identities as fixed and exogenous to the agents. Alternatively every text that seeks to endogeneize identities within agents via processes of socialization and interaction, adopts a radically different position, with Lawler most forcefully arguing that subconscious processes may be at play and that humans are not in total control or fully aware of their own internal thought processes. Meanwhile, Burke and Stets argue that the entire social structure that has developed, with its subsequent content and network of identity roles and meanings could not be generated by perfectly rational agents, a claim consistent with James March and Herbert Simon’s examination of organizational theory, specifically noting that organizations exist to address the challenges posed by bounded rationality.¹³

Although it is unclear whether the specific emotional construction of agents will produce significant differences in the handling of identities, it is clear that agents should be capable of entering and leaving different emotional states that alter the context of their decision-making, and that strictly rational approaches to identity based behaviors are inconsistent with any theory hoping to deal with identity as a variable.

Symbolic Communication

Identity theories are interactional, and interpretive. Agents must encode, send, receive, decode and interpret signals in order to perform and evaluate the performances of identity roles. This means that agent interactions are indirect and mediated through a communication system of verbal and non-verbal symbols, such as body language, physical ornamentation like tattoos and jewelry, and dress. While it is not necessary to model the physical and non-physical aspects of identity in detail, it is sensible to create an abstract language that allows for agents to communicate and miscommunicate their chosen identities and roles.

Status, Power and Resources

Identities are inherently political, and therefore correspond to the power of agents. As Jenkins noted, categorization implicitly rewards or punishes target agents by affecting their access to resources. Likewise, different identities require different resources to perform – one cannot be a drummer without a drum. Therefore, agents should have a mechanism for acquiring and deploying resources that are

¹³ See James March and Herbert Simon, *Organizations* (New York, NY: Blackwill, 1993).

DRAFT

correlated with their relative social status, where those with higher status control and deploy greater resources than those of lower status.

Additionally, the status of agents should affect the likelihood that others will affirm their identities. Again, agents require a mechanism by which they can track the specific identity they wish to project and perceive the identities that others are responding to.

Social Networks and Role Definitions

Status, power, roles, and interaction opportunities are all part of identity theory. Social systems are envisioned as networks of identities, where different roles interact at different rates according to their relative resources and status. While such properties belong to agents and were discussed above, the network of identity based interactions should be a discernable and instrumented social structure that can be used for social analysis and model validation.

Behavioral Challenges

Agent behaviors must capture the dynamic processes associated with social identities, both within the agents themselves as they develop and adapt their repertoire of identities, and between agents as they perform their identity roles.

Deontic Logic

Identified agents behave according to idealizations of role archetypes that set standards for what they ought to do given a particular situation. Under these conditions, agents evaluate their options based on which available choice best resembles idealized norms. Calculations of this kind are fundamentally different than those made by utility maximizing agents because they are not seeking to enhance individually determined welfare as much as they are trying to conform to socially constructed, but individually interpreted, models of emulation. Whereas utility maximizing agents maintain a unique utility function against which options are evaluated, deontic agents compare their options to internal representations of an external idealization or model of behavior. This kind of logic is deontic, and applies to situations in which normative motives and commitments determine behavior rather than resource maximization or risk minimization.¹⁴ Deontic agents need to maintain and choose from an ensemble of appropriated social models against which potential actions are compared.

Role Performance and Validation

Identified agents must perform and evaluate roles. Agents perform actions that conform to an identity standard, while evaluating the actions of others according to how they are categorized. Realistic behavior would be deontic in motivation and be mediated by an abstracted agent communication language. Individual utilities should exist, but would be subjugated to the evaluations of role performances and signaling in seeking role validation for others and the maintenance of prominent identities.

Perceptions and Adaptation

Identified agents require a mechanism for interpreting the behavior of others and using these interpretations as feedback for pursuing their own identity validation goals. This process is enabled by the existence of an agent communication language, and a structured network of internally arranged identities that link prominent and salient identities, both discussed above. Such a structure allows for adaptive searches over the agent's identity space based on positive and negative feedback from others that confirms or criticizes the agent's performance of identity roles and emulation of idealized models of behavior.

¹⁴ See John F. Horty, *Agency and Deontic Logic* (New York, NY: Oxford University Press, 2001); and Daniel Ronnedal, *An Introduction to Deontic Logic* (Lexington, KY: Ronnedal, 2009).

DRAFT

Identity Prominence, Salience, and Commitments

Identified agents maintain two parallel structures of identity roles that represent the extent to which they are capable of successfully behaving as they choose to self-identity or have been categorized. As noted above, prominent identities are those that the individual wishes to perform and correspond to self-identification and the voluntary entry into social groups. By comparison, salient identities are those that represent the social roles that people feel compelled to perform and constitute the internalized categories that have been imposed by others.

Simulation provides a unique opportunity to run individuals through multiple cases or trials in which they perform their roles differently – selecting between prominent and salient identities in a given social situation. In doing so, levels of commitment can be measured by calculating the downstream costs of performing social roles on their ability to develop, sustain, and lose ties within their social networks. This mechanism constitutes a simulation within the simulation, where each agent estimates the costs and benefits of performing different social roles in order to calculate the costs associated with their identity choices. This would be computationally intensive and costly, but would provide a measure of agency in the sense of determining if agents could have made alternative performance and role choices that could have made them internally happier by conforming to their idealized models of behavior or externally more connected for adopting behaviors that conforms to the expectations of others.

Towards Improved Models of Counterinsurgency and Counterterrorism

Modern works on counterinsurgency and counterterrorism have consistently noted the failure of brute force, deterrence, and incentives in producing the strategic outcomes that planners desire. In each case, these activities have significant roles to play in any strategy or campaign, despite the fact that their effects and costs are consistently misestimated. Identity theory provides important insights as to why counterinsurgency and counterterrorism campaigns have such difficulty.

Contextualizing Identity and Western Culture

At the conclusion of her book, Lawler notes that Western society has had difficulty with identity theory and interpreting identity based behavior because of its intense cultural focus on the individual as an autonomous actor. This difficulty is encapsulated in Akerlof and Kranton's introduction of identity in economics, where they note that economics begins with the assumption that people are atomistic and are not influenced by others. Thus, Western strategists, development and military planners, intelligence analysts, etc. all think about the alignment of incentives and individual preferences as ways of inducing behaviors, blocking terrorist or insurgent recruitment, and deterrence.

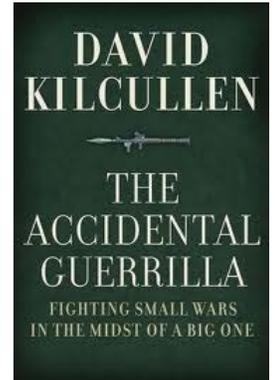
Identity theory suggests that utility seeking behaviors do occur, but do so within spaces that are prescribed as open for individual choices and action or constrained by rules and convention that limit what individuals in particular roles can do. Moreover, notions of self-validation and individual and group esteem may create collective incentives to adhere to and enforce narratives of suffering, resistance of domination, and the loss of cherished traditions and structure that undermine individually focused incentives. Finally, identity theory elevates the performance of social rituals and habits of group membership to higher status than individualistic theories or rational calculations, meaning that many of the behaviors that support insurgent or terrorist activities and organizations may not be the result of personal calculations of utility or displays of individual preferences. Instead, they are the results of habits, traditions, and obligations and therefore unlikely to be altered absent the invention of new roles that adjust the idealizations of socially relevant and shared identities.

DRAFT

David Kilcullen's *The Accidental Guerrilla: Fighting Small Wars in the Midst of a Big One*

Kilcullen's *The Accidental Guerrilla* examines how terrorist groups have successfully fomented insurgencies.¹⁵ While his analysis has been criticized on methodological grounds, extrapolating from a small set of personal experiences and observations, his general narrative is representative of contemporary Counterinsurgency (COIN) strategy and framing of the strategic challenges posed by Al Qaeda's ability to embed itself in local communities.

Identity sits at the heart of Kilcullen's strategic framework, 'the accidental guerrilla syndrome.' The central point of the accidental guerrilla syndrome is that highly ambitious and radicalized groups that possess global aspirations to transform the international system use their resources to infiltrate and shape local communities where governance is weak and tensions between the state's periphery and core are already present. From this initial set of conditions aspects of identity theory can be identified.



First, distinctions between local and global are always operating and represent the gap that global terrorist movements are seeking to erase and exploit. They wish to erase perceptions that they are foreigners in whatever community they have taken root in, while seeking to elevate the belief that the local community is distinct and victimized by the central government. Additionally, questions of group esteem and ambition are evident in that the terrorist group's agenda is highly ambitious and focused on remaking the international order. Their unfulfilled and unattainable objectives mean that they are likely to take strategic risks and resist compromise because even incremental successes will be unlikely to close the gap between accomplishments and aspirations, preventing the group from raising its collective self-esteem.

The second aspect of the accidental guerrilla syndrome is the importance of armed propaganda, which creates an interactional context that separates local communities from central authorities. Terrorist attacks that deliberately provoke strong government response, including inviting US military assistance establish the conditions in which the local community sees the central government as increasingly foreign and hostile to those on society's periphery. This strategy creates new identity boundaries that fragment the state and national identities into regional factions that cast foreign terrorists as the defenders of local, traditional values. Thus, terrorist's global ambitions and communities' xenophobic fears of global assimilation converge, where each is able to validate their role as resisting a common enemy by participating in armed resistance against the central government and its superpower allies, e.g. the US.

In Kilcullen's model, identity politics plays a decisive role in the ways adversaries assess opportunities and make decisions. In his conclusion, he notes that any realistic representation of adversarial behavior must include enemies who perform a variety of social roles that include terrorism, subversion, humanitarian assistance and development, propaganda, and other activities that are designed to influence local and global audiences, and exploit deep-seated beliefs systems embedded in religious, ethnic, tribal, and cultural identities that create nonrational and violent behavior by group members. Although much of Kilcullen's book and representation of the adversarial behavior is focused on their strategic goals and calculations, the relations of ends, means, and ways are all situated within an identity based context.

Finally, Kilcullen provides two important vignettes that reveal the importance of identity based concepts in counterinsurgency campaigns. First, at the start of his discussion on Afghanistan he recounts an ambush of US forces in a mountain valley in which many local males participated. The significance of this event was that it occurred in an area where all survey and public opinion polling showed high levels

¹⁵ David Kilcullen, *The Accidental Guerrilla: Fighting Small Wars in the Midst of a Big One* (New York, NY: Oxford University Press, 2009).

DRAFT

of local support for the US military. In Kilcullen's vignette, after action investigations of the ambush revealed that the population participated in the ambush as a social act and ritual, not because of political grievances or a commitment to the Taliban or Al Qaeda. Social roles and actions that validate individuals as community members of high status provide a better explanation grounded in the social context of the situation than examinations of political allegiances, goals, and organizational commitments.¹⁶

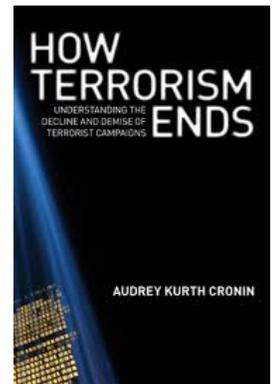
A second vignette that Kilcullen recounts was the importance of constructing a new road. In addition to the economic arguments regarding improved infrastructure for facilitating economic exchange and rapid transportation for moving forces and goods between the capitol city and the country-side, he argued that road construction framed armed encounters in such a way that US were viewed as defending the property and labor of the community while the Taliban attacked it. Being physically positioned in such a way that the US forces were shooting away from the road while Taliban were shooting towards it created identities of attackers and defenders that generated narratives within the local community that cast the Taliban as aggressors that sought to destroy the community's hard work and achievements.

The Flynn Report: The Destruction of the Village Well

In January of 2010, Major General Michael Flynn, Captain Matt Pottinger and Paul D. Batchelor published a highly critical assessment of intelligence support to US military operations in Afghanistan. In their report they cited a case where a well was constructed to ease the burden of village women who had to travel long distances to the river, but after it was constructed the women destroyed the well.¹⁷ This case highlights the importance of identity, customs and ritual. Efforts to improve the efficiency and reduce the burden of labor of the village's women lacked an appreciation of their identities and how they were validated. The ritual of hard labor, and social congregation were the basis of the group's identity.¹⁸

Audrey Kurth Cronin's *How Terrorism Ends: Understanding the Decline and Demise of Terrorist Campaigns*

Cronin provides a valuable model of how terrorist groups' violent campaigns conclude. Her study provides a valuable set of case studies and, more importantly, a framework of six paths to decline that terrorist groups may travel. Many of these paths have very strong identity elements, while she is highly critical of two conventional models of terrorist activity – treating terrorism as a contagion or a 'meme' that is uncritically transmitted and accepted by individual agents, or models of strategic rationality that treat terrorist groups as stable units of action like states, rather than as fragile, ideological, and violent organizations.



Cronin identifies six alternative models for concluding terrorist campaigns:

- Decapitation
- Negotiation
- Success
- Failure

¹⁶ The treatment of warfare as a cultural act and ritual, and not the Clausewitzian continuation of politics by violent means was also advanced by the military historian John Keegan. See John Keegan, *A History of Warfare* (New York, NY: Vintage Books, 1993).

¹⁷ Michael T. Flynn, Matt Pottinger and Paul D. Batchelor, *Fixing Intel: A Blueprint for Making Intelligence Relevant in Afghanistan* (Washington, DC: Center for New American Security, January 2010).

¹⁸ The historian William H. McNeill noted that shared labor, particularly physical labor, song and dance was the likely basis for community bonding in the earliest of human civilizations. See William H. McNeill, *Keeping Together in Time: Dance and Drill in Human History* (Cambridge, MA: Harvard University Press, 1995).

DRAFT

- Repression
- Reorientation

In each case, identity theory plays an important in the conclusion of the group's violent campaign.

Decapitation

Decapitation refers to cases where terrorist leaders are killed or captured. Cronin argues that leadership provides ideological and moral guidance to organizations by providing a narrative that justifies violating social norms against violence and the killing of non-combatants, and creating a sense of shared suffering and victimhood that creates group solidarity. The capture or killing of leadership may allow leaders to achieve special, privileged identities, such as martyr, or it may remove highly effective and charismatic symbolic manipulators from the landscape, weakening group solidarity and producing a succession crisis within the organization.

Whether decapitation strengthens group solidarity or fragments it, the resulting dynamics contain strong identity elements, albeit at different operational levels. In cases when groups decline as a result of a loss of charismatic leader or succession crisis, its group or organizational identities have failed in different ways. When the loss of a charismatic leader has a significant effect on group solidarity, particularly the ability to sustain a violent campaign, it is indicative of the relative weakness of identities that permit violence against civilians within the group. While individuals may be committed to continued violence, their ability to sustain an operational organization and retain or recruit members is limited. Likewise, if decapitation results in a succession crisis, it may mean that the ideological narrative of the group may be capable of persisting, but the division of labor and ability of individuals to subjugate their personal ambitions for the collective good may be lacking. In such cases, decapitation may eliminate or fragment terrorist groups, but former members may remain committed to campaigns of violence if they can organize the means to continue employing force. Alternatively, decapitation may increase the appeal of terrorist groups and enhance the very identities that counterterrorist forces seek to destroy. As noted above, identity narratives are stories of collective pain, suffering and victimhood. As a result, the decapitation of group leadership may strengthen that narrative and provide it greater appeal, increasing group solidarity and assisting in recruitment.

Negotiation

Negotiating with terrorist groups is often resisted on the grounds of legitimizing their organization, ideology, and organization. However, Cronin notes that groups are often sustained by narratives that argue violent campaigns are necessary because their voices will not be heard otherwise and that no other alternatives exist for expressing grievances. In these cases, negotiations may undermine that narrative, allowing members to consider alternative ways of acting out their identity roles.

Negotiations often expose important aspects of identification within terrorist groups. Many groups and members may define their identities by their actions, and not their goals. In such cases, terrorist campaigns are opportunities for committing violent acts, not achieving strategic objectives. In these cases, efforts to negotiate may splinter groups into competing factions of those who identify new strategic, non-violent opportunities for achieving their goals, and those committed to violence as a form of identity validation. In such cases, groups or factions may transition from espousing political motivations and narratives towards increasingly criminal activities that allow for the continuation or escalation of tactical actions without regard for political outcomes, e.g. the cases of the FARC in Columbia and the Tamil Tigers in Sri Lanka.

Success

Cronin notes that many terrorist groups do accomplish their objectives, or at least believe that they have accomplished their objectives. The prospect of success creates an organizational paradox where the

DRAFT

achievement of stated goals may in fact eliminate the justification or the organization, resulting in its disbanding or inability to recruit new members. As with negotiation, groups or members that identify with the acts of violence and not the organization's politics may change their goals or resort to criminal activities in order to continue activities that validate their identities.

Cronin notes that terrorist organizations grounded in collective identities shared by the population, such as ethnicity, may be capable of transitioning to new governance roles, shifting identities from challenging authority to being responsible for governance. Alternatively, those groups that are issue focused, e.g. environmental groups, are less likely to transition roles and retain an operational base capable of sustaining collective action.

Failure

Failure occurs in different ways. Groups may implode as a result of mistakes, burnout, or collapse, or simply lose popular support and interest as a result of history. Cronin notes that one of the most vulnerable times in the life of a terrorist organization is the changing of generational leadership. Many groups end due to an inability to attract new members and replicate their identities in the next generation. Other identity failures are organizational, not ideological, where ideologically committed members are unable to operate within the bounded networks of organizations and accept the division of labor, internal differentiation, and hierarchy associated with effective collective action. Such individuals may become lone-wolf terrorists, e.g. Timothy McVeigh, because of their inability to meet the disciplinary demands of the group. Groups may also suffer from strong competition over ideology and identity, where members cannot agree on a model for emulation or ideals of behavior that can link goals, action, and resource employment into a shared, coherent and stable identity.

History itself constitutes a special kind of failure, where world events simply undermine the appeal of the group's ideology and narrative. Cronin notes that many left-wing terrorist groups simply collapsed with the end of the Cold War because communism as an ideology simply lost its appeal. In such cases, grand civilizational narratives may undermine entire group identities by casting them out-of-bounds with respect to tolerable social discourse.

Repression

Cronin argues that repression can be effective against terrorist campaigns, but that it often counterproductive in the long run by playing into the narratives of suffering and lack of options that terrorist groups use to sustain and recruit members. Alternatively, the long-term success of repression rests on a battle for the identity of the population, and their willingness to support the state, often via mobilization at the local levels by assisting government forces identify and root out terrorists in their communities. Cronin notes that the great risk posed by repression is that communities may fracture and see the state as a greater threat to their continued traditions and customs, or that the use of force delegitimizes the government, undermining its ability to mobilize citizens and reducing its operations to juridical power and compellance only.

Reorientation

Reorientation occurs when terrorist groups transition into new kinds of organizations, such as geographically based insurgencies or separatist movements, or criminal networks. Both of these cases involve significant shifts in identities, in one case becoming spatially bounded and tied to particular social categories. Transitioning into insurgencies indicates the proliferation of identities to the larger population, at least at a regional or community level where operational changes reflect the ability to mobilize the local population. By comparison, transitions to criminality suggests that the group's identities have shifted towards sustaining tactical or procedural continuity regardless of the political outcomes, or preferences for material tastes and consumption that criminal acts can secure have depoliticized the groups focus.