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HIGHER EDUCATION AND THE NEW WORK ORDER:
IMPLICATIONS FOR THE SOCIAL AND BEHAVIORAL SCIENCES

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Abstract

The realization is emerging in higher education that to maintain viability in a globalizing world driven by business interests, curricula must be aligned with the world of work. Tentative consensus among academic and business leaders suggests the skills that will be required: ability to think critically and communicate effectively, verbally and in writing; working comfortably in teams, within specific areas and cross-functionally; knowledgeable about globalization and the cultural diversity it entails; and high-level communications and technological literacy, enabling application of new knowledge to address complex, real-world problems. Based on 19th century models of knowledge production and transmission, and embodying the structures and metaphors of the industrial age, the current hierarchical discipline-based degree-by-course system of higher education needs reworking to remain viable. This paper analyzes the emerging new work order and its implications for the Social and Behavioral Sciences, and offers institutional and curricular formulations that are more in line with the 21st century. It will suggest a model of Social and Behavioral Sciences that is interdisciplinary, skills driven and outcomes based, and which will provide graduates with the applied knowledge and flexibility needed to understand and function successfully in the new work order, with attention to the needs and concerns of the United Arab Emirates.
ملخص

بدأ المعنيين بالتعليم العالي يدركون أنه للحفاظ على حيوية هذا التعليم في عصر العولمة المدفوع بالفوائد التجارية، يجب إعادة هيكلة المناهج الدراسية لكي يتناسب مع الحياة العملية. ويتفق حاليا الأكاديميون رجال الأعمال على أن المهارات المطلوبة في مجال العمل هي: إمكانية التفكير ماديا، والتواصل بشكل فعال، لفظًا، كتابة، والعمل باستمرار مع فريق العمل والقيام بوظائف متعددة ضمن هذه المساحة، وأن يكون الفرد حسن الإطلاع وذو معرفة بالعلوم والتسنويق الثقافي الذي نطلبه، كما يجب أن يكون ذا قدرة عالية في مجال تكنولوجيا الاتصالات متمنية من تطبيق العلم لمواجهة المشاكل الحقيقية المعقدة. إن النظام الحالي والمبني على نموذج القرن التاسع عشر يحتاج إلى إعادة إبرمجة للمحافعة على إمكانية تطبيقه لإنتاج المعرفة ونقلها. هذه الدراسة تقوم على تحليل النظام العلمي الجديد الذي بدأ بالظهور، وما يضمن من تأثيرات على علم الاجتماع، وتقدم هذه الدراسة نموذجاً يناسب مع القرن الواحد والعشرين كما تفترض مخططًا لعلم الاجتماع متفرع المعرفة، وقائم على المهارات المكتسبة لمُخبرين، والتي سيؤدؤهم بالعلوم التطبيقية والموثوقية اللازمة لفهم والاستيعاب والعمل بنجاح في نظام العمل الجديد، بالإضافة إلى عناية خاصة باحتياجات واهتمامات دولة الإمارات العربية المتحدة.
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Academic institutions in the West are facing a crisis of meaning. Traditional approaches to knowledge construction and maintenance in the Western academy, rooted in 19th century intellectual and institutional norms, have increasingly come to be seen as outdated and irrelevant in contemporary socio-political contexts. Recent trends are contributing to this crisis, including the ongoing privatization of academic institutions, broader availability of academic information via the Internet, and the global media emerging as a transnational guiding and legitimizing force above and beyond the traditional institutions of higher learning and education.

Careful observers will recognize that this is not the first time the Western academy has faced a crisis of meaning. During the 19th century, Euro-American Natural and Social Scientists had the world figured out according to a paradigm rooted in white supremacy and essentialism, seeing Europe as the epitome of human civilization and ranking other peoples and societies on a descending scale. But when Europe exploded into a horrific frenzy of murder and mayhem during World War One, killing millions of its own people in the most barbarous and savage ways imaginable and on a scale never witnessed in human history, the 19th century model crumbled, leaving many intellectuals to lament 'the decline of the West.'

Between the Western World Wars, a new paradigm emerged that made a concerted effort to avoid the hierarchical moralizing of the 19th century. Scientists of all stripes began to indulge in 'relativism,' which taught that all natural and social phenomena are relative to the time and place in which they occur. This distinctive 20th century paradigm became a haven for academics who felt a newfound sense of purpose. But when the West convulsed again into another spasm of death and destruction at mid-century, absolute relativism began to lose its appeal. Many observers noted that relativism was amoral, and called for renewing essentialism. As the debate between essentialism and relativism became increasingly
convoluted and self-serving, academics on all sides lost track of developments in the world.

As the Cold War heated up, a new crisis in academia emerged. Sparked by the threat of global nuclear conflagration, along with the newly independent nations of the Third World, the new crisis of meaning and purpose pressed Western academia into the service of the national security state. By the time these events fully unfolded at the turn of the millennium, a generation or more of non-Western peoples had been seeking Western academic knowledge. The presence of non-Western peoples challenged essentialism and raised further questions about relativism. Social and Behavioral Sciences merged with philology and linguistics, creating the new interdisciplinary academic field usually known as Area Studies.

By the end of the 20th century, the Cold War was on the decline and globalization was on the rise. Initiated by the gradual ascendancy of the neo-liberal worldview, globalization began as an economic process but soon encompassed culture and politics. In its latest phase, globalization is marked by the coalescence of global corporations as a power bloc over traditional nation states, which has precipitated yet another crisis in academia, again questioning the legitimacy of higher education. Inheriting some demands from the national security state, but infused with a global economic outlook, the forces of globalization seem poised to redirect higher education toward economic utility. One of the debates emerging from the current crisis concerns the relationship between education and the world of work.

**The New Work Order**

Institutions of higher education in the West are increasingly realizing that in order to maintain their viability and relevance in a globalizing world driven by business interests, they must re-align their curricula with the world of work. Although there is not yet unanimous agreement on what will be required of workers of the
future, or what kinds of jobs they will hold, there are some tentative points of consensus among certain quarters of the business-driven academic world. For instance, according to Molly Corbett Broad, president of the University of North Carolina System, American business managers, executives and human resource professionals are consistently seeking selected skills in the college graduates they hire. These include: ‘ability to think critically and communicate effectively, both verbally and in writing; comfortable working in teams, both within their areas and cross-functionally; proficient in information and telecommunications technologies; and knowledgeable about the global environment in which they must function and facile in the cultural diversity it entails’ (in Oblinger and Verville 1998, p. vi).

The Wingspread Group, a research foundation with interests in business and higher education, defines a quality education of the 21st century as having several essential components. According to its 1993 report ‘An American Imperative: Higher Expectations for Higher Education,’ graduates for the new global economy must have: ‘technical competence in the field; high-level communications, computational and technological literacy, and information abilities enabling individuals to apply new knowledge as needed; ability to arrive at informed judgments; ability to function in a global community; attitudes such as flexibility, ease with diversity, initiative, motivation, and teamwork; ability to address complex, real-world problems under “enterprise conditions”’ (cited in Oblinger and Verville 1998, p. 126). More succinctly, Edward T. Clark, an educational consultant working for American businesses and public interests, projects that workers and citizens of the future will require three interlocking skills: language proficiency, cybernetic literacy, and entrepreneurial audacity (Clark 1997).

There are many other variations on these themes, and all ask the basic question ‘what does business want from education?’ But these are not entirely new concerns. Many of them were identified by Donald Schön, a social scientist at the Massachusetts Institute of Technology, in a series of important books and articles dating
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back to the early 1980s. Schön urged educational institutions to train what he called 'reflective practitioners,' people who can treat their jobs the way an academic would treat a research project, taking ownership of tasks, skills and decisions, becoming adept at 'problem-posing' as a necessary pre-requisite for effective problem solving, and being able to critically reflect on one's own performance with an eye toward continuous learning and adjusting one's performance in light of practice (Schön 1983 and 1987). This is different than what Schön calls 'instrumental rationality,' a form of technical knowledge that results from 19th century discipline specificity in academic and vocational training, where workers and academics are unable to operate outside a narrow, pre-defined set of practical techniques. Instrumental rationality, which often leads to a false sense of superiority due to narrow technical expertise, and which also leads to dependency on others to define problems and set priorities, is no longer relevant in the new work order, which requires flexibility, context-specific knowledge and customization of skills according to ever evolving situations. Instrumental rationality, common in many modern professions, says that all that matters is 'experience.' But without reflection, experience can be misleading and may simply reproduce outmoded ways of thinking and acting. Reflective practitioners can integrate academic reflection and research with experience, keeping fresh in the debates and knowledges related to their fields, but also continuously examining their own practices in light of evolving concerns of the workplace and society.

Other studies have come to similar conclusions, but disagree on exactly how the new work order will look. While some speak of post-modernity, a condition in which the old norms are breaking down and losing their meaning, others insist that what is really happening is a form 'hyper-modernity' in which the norms and systems of modernity are intact, but simply operating faster and more intensely than during the 19th and 20th centuries (Best and Kellner 1997, Harvey 1990). Similarly, other researchers have discussed the new work order as characterized by Fordism giving
way to post-Fordism and neo-Fordism. Named after the modern American assembly line manufacturing pioneer, Fordism is characterized by mass production and standardization, while post-Fordism is characterized by production on demand and customization. Neo-Fordism, like hyper-modernism, is simply a speeded up version of Fordism, but which borrows some of the ideas and practices from post-Fordism (Currie and Newson 1998). Whether one sees post-modernity, hyper-modernity, post-Fordism or neo-Fordism, one thing remains clear: the old order is changing rapidly, and while business is driving this, higher education has lagged behind in forming coherent responses. What is also clear is that a form of ‘post-formal thinking’ is necessary as the formalities of the modern world lose relevance or are reconfigured (Kincheloe 1995). Formalism, like instrumental rationality, reifies and valorizes established practice at the expense of flexibility, and tends to reproduce outmoded systems of thought and action, while post-formal thought by definition is self-reflective, realizing that systems are ever-changing and require problem posing as well as problem solving skills, and that the established formalities may be hindrances to effective and flexible problem posing.

Neoliberalism and the new work order also pose challenges to the structure of higher education. Oblinger and Verville (1998, p. 157) have summarized the potential impact of the new work order on colleges and universities in terms of the current assumptions about how academic institutions ought to work and what they ought to achieve, and recommend a new focus in several key areas of transformation. Many of the same themes previously discussed emerge from this proposed transformation, including an increased emphasis on processes and outcomes, customization rather than standardization, and cooperative rather than individualistic methods of teaching and learning. The transformation affects all areas of higher education, from theory and practice to structure and budget. Instructional missions are shifting away from teaching and more toward learning, while the task of human resources is to develop skills and talents rather than simply selecting them. Institutional strategies are shifting away from being driven only by budget and now include a focus on goals. Taking cues from the
business world and the waves of privatization, academic institutions in the new work order will gradually begin to conceptualize their students as customers, with graduates being evaluated in terms of outcomes rather than courses and credit hours accumulated. Organizationally, higher education under the new work order will probably move from hierarchical structures to networks, and management reworked in terms of teams with rewards shifting from seniority to performance. Resources may move away from physical assets and into people value, including ideas, while governance may move into collective responsibility and away from faculty autonomy. As higher education increasingly competes like a business in the marketplaces of the new work order, indicators of success will shift away from institutions to student achievements and reputation in terms of delivery according to budgetary priorities. No longer growing for their own sake, new work order institutions may find themselves having to focus on maintaining the right size for their task, while delivery may shift to flexible rather than stable structures. If this all comes to pass, it will likely take place in an increasingly global and highly competitive marketplace. However, at present it is important to see these as projections, since the new work order, like the global economy itself, is highly volatile and precarious and no one is sure exactly how the new work order will look once the old order is dismantled and discarded. Therefore, adaptation, flexibility and mobility may become key attributes of education in the new order.

Much of the literature on the new work order is coming from American business and academic organizations, many of which have vested interests of one sort or another in its realization, so it may be prudent to briefly look at some concurrent debates in a broader Western context. While globalization is seen by many to be merely a form of Americanization, this may only be temporary and as globalism becomes the norm, all societies - including America - will have been adjusted by it. In fact, there are several emerging changes in educational outlook in America, at all levels from primary grades through higher education. Studies of
American education suggest that educators across the range of disciplines and institutions are asking some foundational questions about organizational structure of schools, colleges and universities. For example, one study of secondary schools asks: ‘What social and educational ends are served or thwarted by the model for the subject departments? To what extent, as suggested by sweeping comparisons of “subject oriented” and “student oriented” teachers, is investment in subject and commitment to students difficult to reconcile - and how is it that some departments reconcile them? How, then, does subject specialization matter, and for whom? What does it signify to teach English versus mathematics, or home economics? What does it mean to teach in a “real department” or in one that is somehow seen as less than real? What are the implications of subject affiliation and department membership for teachers’ work, and for students’ experience of schooling? If we seek to reinvent or transform secondary schooling, would we be wise to strengthen departments or to abandon them?’ (Siskin and Little 1995, p.2). Studies of higher education have come to a similar point of questioning and reflecting on their purpose (e.g., Miyoshi 1998, Readings 1996, Kerr 1982). From primary schools right on up to colleges and universities, it can no longer be assumed that traditional subjects, disciplines and methods need to exist simply because they have existed for a century or more - they need to explain their meaning and purpose and justify their continuation in a world driven by business interests, information technologies and globalization. While this has initially been a challenge to marginalized programs, such as Women’s Studies or Ethnic Studies, it is also being applied to the more entrenched departments and disciplines, to more broadly assess the mission of an academic institution and better clarify its goals and assumptions.

One could also look toward some of the academic disciplines themselves, which are beginning to reflect the changes of the emerging new work order. While they differ on issues related to economic equity and political structure, many social scientists in the West are arriving at conclusions similar to those of the business interests. Sociologist Zygmunt Bauman (2001), for
example, tracks the emergence of a new global ruling elite whose power is derived from mobility. In the 19th century, power was defined by stability, with members of the power elite building vast edifices to themselves and their nations, investing capital, labor and intellect in long-term projects, industries and governing structures. Subordinates to this system, whether factory workers, students or colonial subjects, were bound to the same system as their overlords, both parties intertwined in elaborate regimes of law, regulation and inspection. But power in the age of 'liquid modernity' has eschewed this solidity of the past and now seeks to be utterly free of all constraints.

In such a scheme, Bauman finds the 'devaluation of order as such' and that 'order becomes the index of powerlessness and subordination.' He describes what can be called 'the revenge of the nomads,' overturning orthodox sociological assumptions that sedentary peoples came to subjugate mobile peoples. It is now the mobile who rule, and the new global order (perhaps 'disorder' is a more apt term) can be seen as a way of eliminating all constraints of time and space to free up the global ruling elite (with its intellect and capital) from all boundaries, conceptual as well as national. This new 'cyber-elite' consists of those who have developed the 'confidence to dwell in disorder' and the ability to 'flourish in the midst of dislocation.' They have mastered the art of 'positioning oneself in a network of possibilities rather than paralyzing oneself in one particular job,' and their works are indicated by the 'willingness to destroy what one has made' and then 'to let go, if not to give.' For Bauman, 'identity in the globalizing world' is distinguished by a process of 'individualization' that carries with it 'the emancipation of the individual from the ascribed, inherited and inborn determination of his or her social character.' He links this individualized freedom to create and re-create oneself with the emerging media-fed global consumer culture, in which 'shopping' (for products, identities, moralities) becomes the defining feature. Such an individual has no need for lifelong commitment, whether they be commitments to religion, marriage or nation, and instead
becomes part of a class of drifting ‘free-agents’ continually in search of the latest fad or fashion, never needing to settle for long.

Theories of mobility as described by social scientists have implications for education. As Bauman notes, while in the ‘modernizing’ countries, universities ‘may still play the traditional role of factories supplying a heretofore missing educated elite,’ universities in the West will need to ‘rethink their role in a world that has no use for their traditional services, sets new rules for the game of prestige and influence, and views with growing suspicion the values they stood for.’ Some social scientists have suggested that universities are becoming slow to respond to the unpredictable and hyper-changing worlds of liquid modernity in the age of globalization, as indicated, for instance, that by the time graduates finish a degree, the knowledge they gain may already be obsolete. Meanwhile, as Bauman notes, after the ‘scientifically assisted horrors’ of the 20th century, faith in the humanizing potential of Western science ‘seems laughably, perhaps even criminally, naïve.’ While many 19th and 20th century traditions used to be coveted assets for creating meaning in Western universities, they are quickly becoming liabilities in a more fluid and tentative world. Bauman suggests that universities develop responses to the emerging global (dis)order so as to maintain their sense of meaning and purpose, and sees the diversity of opinions, methodologies and curricula as necessary survival features. If these policy analysts and social scientists are correct in suggesting that there is a business driven process of educational adjustment and curricular reform emerging in higher education, then it seems necessary to switch gears out of the 19th century, and begin to take the new work order seriously.

Implications for Social and Behavioral Sciences

The new work order has several important implications for higher education, which I want to summarize before moving on to specific implications for the Social and Behavioral Sciences. As has been stated numerous times by academic consultants and business leaders, and as many university leaders have seconded, most of
what we consider to be higher education is coming to be seen as obsolete in the face of the new work order. Still based on 19th century models of knowledge production and maintenance, and embodying the structures and metaphors of the industrial age, the current disciplinary-based degree-by-course system of most colleges and universities needs to be seriously reworked. While no one seems to have the best answer to the question, 'reworked how?' and in the absence of coherent and functioning models on the ground, the universities of the future are being designed and reworked on the fly, now, in process, and according to ever-evolving and variable networks of criteria. This itself is a characteristic of the new work order, which emphasizes production-on-demand, and what can be formulated 'just-in-time,' instead of relying on reflection or mass production in advance.

The Social and Behavioral Sciences are at the center of this reformulation. The business challenge to higher education is forcing educational institutions to answer foundational questions about their meaning and purpose: 'What is your business? What is your top priority? Who must you please? What is your relationship to the community? Who are you going to reward and how? What is the long term vision of the organization?' (Oblinger and Verville 1998, p. 136). Many of these issues were formulated by social scientists (e.g., Schön 1983), picked up by business leaders, and then re-integrated into social science thinking. In other words, what has been happening is that social scientists have figured out the new work order, and as that world of work is coming into being, they have also realized the necessity to reconfigure their own thinking to remain part of what is now seen to be an ever-evolving system of thought and action, blurring the distinctions between academics and vocation. This has led to a rethinking of the 19th century disciplinary base of social science knowledge, with some of the most influential social scientist of the 20th century calling for a complete reconfiguring of the social science disciplines to meet the demands of the emerging new work order of the 21st century (cf. Wallerstein 1999). The curricular implications for this line of
thought are profound. While graduate programs might operate for the time being within the traditional 19th century model, it is quite clear that a traditional undergraduate degree in Sociology, History or Psychology or any of the other modernist Social Science disciplines has lost most of its relevance in the emerging new work order. And, in time, graduate programs will follow, because rather than disciplinary knowledge, workers and citizens of the future will require overlapping sets of skills, none of which can be learned in a single traditional disciplinary structure. Often termed interdisciplinary or, more recently, trans-disciplinary study, what is necessary is an education that focuses on ways of thinking and acting, that fosters reflection in process and intellectual flexibility, and that encourages concepts and tools for life-long learning and adaptability within ever-changing networks.

While many of the emerging concerns of the new work order are generic, having to do with skills like language proficiency, technology and teamwork, the concerns related to 'cultural diversity' and those emanating under the rubric 'globalism' seem to be a natural domain for the Social and Behavioral Sciences. Some form of cultural diversity has been part of American higher education since the early 1970s, in the form of multicultural education and various Ethnic Studies programs, but the new work order requires an added component. Rather than merely focusing on defining and celebrating ethnic or other kinds of fixed identities, the cultural diversity of the future will be primarily about how local cultures interact with and respond to global cultures (Beck 2000). There is an inherent tension between globalism and localism, and any viable Social and Behavioral Science program will have to pay attention to this tension, not necessarily to resolve it definitively, but to normalize it as an ethos into its programs of study. The same tension can be felt as a form of academic nationalism and retrenchment, when the 19th century disciplines are challenged to rework their curricula according to 21st century projections. Nationalism of all sorts is a product of the 19th century, and while it may remain a part of the 21st century world scene, the key issue will be how various national identities are created and experienced in relationship to competing identities and within complex, ever-
changing networks in the context of globalization. With this general framework in mind, let us now take a brief look at some specific curricular and methodological implications for the Social and Behavioral Sciences, which I have organized in terms of areas of transformation and with observations on how current assumptions may give way to a new focus.

**Knowledge Organization.** Currently organized on disciplinary models, with each discipline maintaining its own discourse, academic departments are still operating on 19th norms of epistemology and hermeneutics. While many of the tools and questions of the disciplines are relevant in the emerging new work order, knowledge in the new order will be organized more in terms of networked processes and methods of thematic inquiry and less in terms of linear norms and assumptions about content. In other words, allegiance to the prevailing discourse is no longer enough to claim viability. The presently prevailing discourses will have to be reworked and the academic disciplines of the 21st century may look quite different in form and content than those based on the 19th century model. What will likely happen at first is a recombination of some prevailing disciplines, which will organize themselves in terms of thematic questions and processes that are relevant to the new work order. This may include questions related to, but not limited to, national identity in relation to globalization, peace and justice issues in relation to conflict, environmentalism and its relationship to consumer culture, cultural and physical migrations across fluid boundaries, and different forms of hybridity and border-crossing, to name just a few. Knowledge organization will proceed along thematic lines and will therefore by definition be interdisciplinary, at least as long as the prevailing disciplinary discourses maintain some limited viability. But eventually, new disciplines may emerge with new names and focuses, the way they always have in the course of academic history. They will be defined less in terms of their disciplinary content and linear discourses and more in terms of the networked processes they employ to understand emerging social and cultural issues,
especially those of immediate relevance to a particular socio-cultural context, with a new focus on areas like International Studies and Culture Identity.

**Research Methodology.** Rather than relying on the 19\textsuperscript{th} century research methods that are based on positivism and the illusion of scientific certainty, research methods of the 21\textsuperscript{st} century will have to be reflective and take into consideration their own negotiated reality. This is necessary for research to remain relevant to current cultural, political and social concerns, especially those that arise from globalization and the new work order. Research for its own sake will be less important, with a perceptible shift toward 'reflection in action,' or what is sometimes called 'action research.' Similarly, traditionally painstaking quantitative and qualitative approaches to research may lessen in importance, since by the time studies are published they risk being outdated and irrelevant. Instead, research will need to consider the 'just-in-time' nature of the new work order and ways will have to be devised to keep research rigorous but above all socially and immediately relevant. Drawing upon the conceptions of the 'reflective practitioner,' Social and Behavioral Scientists may find that the idea of researcher as a profession will lessen, with workers and citizens taking on many of the components of what might be called situational research projects. In other words, research will have to pervade the new work order, and not be left to a special class known as 'researchers.' This demands that graduates into the new work order be trained in the latest research methods, especially those based on reflection in action, and while it is necessary on the undergraduate level, where most workers get their education, it may also come to pervade graduate level training as well.

**Real World Relevance.** The Social and Behavioral Science programs of the future will be increasingly pressed into service for national, and in some cases corporate, goals and asked to serve different quarters of the new work order. They will earn their keep not by adhering to traditional pathways and linear disciplinary edifices, but by identifying shifting niches and needs and learning
to fill them on demand. This will require developing a keen eye for the paradoxes and problems of the new work order. For example, in societies such as the United Arab Emirates where women are traditionally not part of the workforce, but which also rely on maids to care for children, there is a potential paradox in calling for women to enter the workforce. Where guest workers make up a significant part of the workforce, both as housemaids but also in the local public and private sectors, there are emerging local concerns to nationalize the workforce in relation to the globalization of business and work. Since many men already work outside the home, this means moving more women out of the home and into the workplace. If maids raising children in the presence of mothers is a short term concern, then this concern will be exacerbated in the long term as women move out of the home and into the workplace. This is a good example of an emerging complex problem that requires careful framing, since it involves many interrelated and potentially conflicting factors and interests. Social and Behavioral Scientists of the future should be able quickly analyze and assess such situations, framing the problems and contributing to deeper understanding of those problems, and helping to identify steps toward solutions, since problems well posed already contain their solutions. Poorly posed problems will lead to other problems, or to wrong-headed or drastic solutions. Therefore, it will be imperative in the new work order to have Social and Behavioral Scientists in government and industry who are trained to recognize, frame, and solve complex real world problems, including those recent problems that will (perhaps ironically) be raised as by-products of the new work order itself.

**Assessment.** Student assessment for new Social and Behavioral Science programs will likely evolve toward becoming portfolio and performance based, with regular and ongoing instructor feedback leading up to mid-semester and end-semester evaluations of their works, the goal being mastery and excellence rather than hierarchical ranking. Portfolios, sometimes in electronic form, will need to include examples of student works generated in whole
class, small group and individual activities, and will demonstrate proficiencies with words, graphics and web pages emanating from academic projects and research studies in real world contexts. Less a teacher-centered sorting mechanism and more a student-centered learning experience, assessment in the new work order will shift its focus away from individualistic competition and concentrate on teamwork and mastery learning.

Public Image of Academic Work. Since it is no longer self evident that a program in Social and Behavioral Sciences is necessary, such programs will enter into a sort of competitive marketplace for student-customers. At present, many students and employers seem to like what they know, and they don’t know Social and Behavioral Sciences, opting instead for the more self-evident fields like Business or Information Systems. As an academic advisor, I have had the opportunity to speak with dozens of undergraduate students, many of whom have not yet declared majors. From my conversations, many have no idea of what Social and Behavioral Sciences are all about, and the very few who do know something either enjoyed history and geography in high school or had sisters or other relatives that are (some times out of work) psychologists or social workers. The vast majority began by asking variations on the same general questions, such as: ‘What kind of jobs can I get with this major?’ ‘What is social science about?’ ‘What courses do we take?’ Paying close attention to their creeping boredom as I answered their questions with teacher-centered lists of disciplines, courses and jobs, and given the rather exciting and sometimes noisy presentations from other programs, I quickly decided on a more student-centered strategy for talking about Social and Behavioral Sciences. Showing as much of my own genuine interest and enthusiasm as possible, I asked students what they were interested in, what they liked about their schooling, how they spent their free time, and the kinds of things they hoped to do after college. This led to interesting discussions ranging from the impact of American cinema and globalization, to the question of Palestine, and including emerging social problems in the UAE, through which I tried to frame Social and Behavioral Science as a flexible network that sees everything as a potential source of
interest and study, rather than proceeding from the linear track of courses and 19th century disciplines. I emphasized that because it is a broadly defined major encompassing different knowledge areas with many employment prospects (some of which we may not yet know about), there was plenty of room for customizing the major according to the various interests and goals that students bring with them. When I gave them a brochure explaining the major, I said that this was a bare framework that needs to be filled in with students and their interests, noting in particular how faculty can work very closely with each individual student to give them the broad array of knowledge, skills, and experiences not for a single and narrowly defined job but for a wide range of professions and endeavors in an ever-shifting and unpredictable world. The skills I emphasized included independent reasoning, critical thinking, working with people, developing and presenting ideas using technology, expanding our minds into new areas, learning leadership, and being able to identify and solve complex social and cultural problems, to name just a few. In the ensuing discussions, emerging student interests intersected with some of our previously framed themes, such as social problems and crime, or family and marriage disintegration, and other publicly defined issues, but we also generated a host of new and interesting themes for study, including globalization, media culture, Americanization, tensions between tradition and modernity, work and society, the relationship between the past, present, and future, and issues of national identity. Most students expressed much more enthusiasm than they came with, and said they didn’t know Social and Behavioral Science could be ‘so interesting,’ and began asking questions beyond the usual linear ones about courses and jobs. I learned a lot from these discussions, especially that students appreciated the focused attention, that they are enthusiastic about customized courses of study, that they are intrigued about a program that asks them what they are interested in and what they want to learn, and that they could see themselves as participants in a dynamic program and not merely functions of a static major. More importantly, and conversely, I learned that we may limit student
prospects and hinder their enthusiasm by our own limited expectations of what we think the Social and Behavioral Sciences ought to be about. In short, what this experience suggests to me is that Social and Behavioral Sciences may have what amounts to a public relations problem, and it will be up to the best minds in the field to frame it in ways that make better sense to students and the community, including employers.

For the time being, much of what we do in the Social and Behavioral Sciences may still be based on 19th century Western paradigms of knowledge construction, maintenance and transmission. Recent thinking by some of the most important social scientists of the 20th century suggests that this paradigm has outlived its usefulness, and that a new paradigm and practice of Social and Behavioral Sciences is emerging for the 21st century. American sociologist Immanuel Wallerstein, in his recent role as President of the International Sociological Association, proposed in a series of keynote addresses an outline of Social and Behavioral Science for the 21st century. While the 19th century model is based on compartmentalization of thought with a rigid separation between theory and practice and a false sense of certainty, the 21st century model is necessarily more fluid, with theory and practice more unified and certainty being more realistically tentative. In the 1980s, Donald Schön wrote influential books about the ‘reflective practitioner,’ and his ideas have since been adopted with great success by several large corporations. The key element here consists of merging academic and vocational work into a more cohesive professional whole in which workers take more responsibility for decision making, and leadership roles are knowledge based.

Scholars, educators and business leaders have begun to take up the challenge laid down in these and other works, and it is very likely that academic institutions, as well as businesses, of the 21st century will look and operate quite differently than those of the 19th and 20th centuries. A major in Social and Behavioral Sciences with this as its guiding philosophy might best be arranged as follows: 200 level courses can be broad, topical, exploratory, thematic, and
interdisciplinary. 300 level courses can dip into the some of the traditional disciplines here and there, as needed, perhaps by taking several courses from one discipline for depth, plus a few from other disciplines for some breadth, but always focusing on interdisciplinary and thematic problem posing and problem solving in real world contexts. 400 level courses can evolve around student projects, and include generic categories like ‘Topics in Social Study,’ which can be tailored to each cohort of majors as needed. At the 400 level, students will work on their portfolios and do some directed reading and research, and an especially fieldwork or internship. The goal of such a program is what Schön calls ‘reflection-in-action,’ to help students become proficient at ‘problem posing’ before problem solving and to encourage a generation of ‘reflective practitioners’ who can then take their place in various sectors of public and private life. Faculty working in such academic programs will have to rethink arbitrary boundaries between theory and practice, along with content and process, by themselves encouraging self-direction and self-assessment.

The 21st century brings numerous challenges to higher education and these challenges are emerging from a global business community that envisions and is attempting to construct a new work order, with new paradigms of creating knowledge, and new ways of integrating education into public life. In this new work order, instrumental rationality is being replaced by reflection-in-practice; Cartesian-Newtonian norms of thought and action that are based on linearity and compartmentalization are being replaced by those revolving around quantum mechanics and cybernetics; fact memorization is being displaced by data selection and analysis; mass production and standardization are giving way to production-on-demand and customization; didactic managing and teaching styles are stepping aside for dialectical forms of consultation and cooperation; leadership criteria are shifting from status-based to performance-based; critical thinking is expanding beyond problem solving to include an emphasis on problem posing and recognition; fixed and rigid hierarchies are giving way to flexible and
collaborative networks; bureaucracies are becoming meritocracies and decision making processes are increasingly transparent; certainty is re-defined in terms of complexity; mind and matter are no longer distinct and separate from one another. To succeed and prosper in such an environment, citizens, consumers and workers will have to be adept at recognizing and defining problems and avoiding ill-defined problems, functioning with forms of systems thinking and creative intelligence, and be flexible in both a global and local outlook with a tolerance for ambiguity.

Social and Behavioral Science programs ought to be able to produce graduates who will have the necessary knowledge skills and outlook to succeed in the new work order, in addition to functioning with an adaptability for life in a demanding yet uncertain employment market. They should have the ability to address the needs of organizations involved with initiating, developing, implementing and evaluating programs and projects in the area of social and cultural policy, in broadly interpreted sectors. Because the public and private sectors are increasingly intersecting, both actively concerned with work and employment, family issues, community development, and national identity, Social and Behavioral Science graduates will increasingly need the training, skills and perspectives to work optimally in complex and changing environments. We owe it to our students, as well as to the nation, to insure that graduates have the ability to apply diverse knowledge skills and tools to identify, define and cope with cultural issues and social problems in ‘real world’ contexts. Social and Behavioral Science graduates must be prepared to assume positions of leadership in the public and private sectors of modernizing nations such as the United Arab Emirates, and they must also be prepared to pursue graduate and post-graduate education at major universities throughout the world. Such an ambitious prospectus will not only serve the immediate needs of a nation or region in a specific time and place; it can also pave the way for a rejuvenation of academic meaning and purpose for the 21st century.
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لا يوجد نص يمكن قراءته بشكل طبيعي من الصورة المقدمة.
The Function of Myth in David Mamet's

"American Buffalo"

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Abstract

As a social critic, David Mamet exposes the moral and ethical decline of the American culture. In most of his works, Mamet focuses on the relation of man to his society during times of disintegration. Yet, he refuses to offer the means or solutions by which the country can heal itself, and this is where his appearance as a social critic is different from most social dramatists. This paper studies the way in which Mamet is not simply writing social criticism; rather he extracts what lies beneath human experience and give it the appearance of social criticism. The study reveals the strong mythological undercurrents beneath the surface of Mamet's works. "American Buffalo" represents Mamet's anti-myth of American success. The study proves that Mamet's use of myth in this play reveals a distorted national mythology. It reveals the wide open gaps in American contemporary living. Intimacy in human relationships is lost, self-serving agendas help leave the individual isolated and alone. Among the results of this study: the problems explored in myths are common human problems. The myths help bind individuals to one another, indicating that the lessons learned through the ages are capable of being learned today. Finally, the utilization of myth suggests that human being is inter-related and inter-connected.
ملخص

يربط هذا البحث بين الأسطورة بما تتضمنه من قيم وتعليمات إنسانية عامة وبين مفاهيم المجتمع الأمريكي الحديث التي أدت إلى الإفلاس الأخلاقي وتهلون القيم. وقد ركز الكاتب الأمريكي "دافيد مامات" في معظم أعماله على علاقة الفرد بالمجتمع أثناء فترة الإفلاس والتفكير النقدي والأخلاقية. وفي ذات الوقت أوضح عن تقديم وسائل للعلاج أو حلول شافية للمشكلات التي يتعرض لها في أعماله. من هنا يبرز اختلافه عن الكثير من الكتب المعاصرة.

ومن النتائج العامة التي ينتهي إليها هذا البحث أن "مامات" لا يكتب نقدًا اجتماعيا بالمفهوم المباشر للنقد. ولكنه يغلق في صميم التجربة الإنسانية ويقدم ما هو أعمق وأعمق في النقد الظاهري للأحداث. ويكشف البحث عن وجود تيارات واتجاهات أسطورية في أعمال "دافيد مامات" حيث يبرز في مسرحيه "الجاموس الأمريكي" كيفية تشكيل الثقافة الأمريكية الحديثة لصورة الأسطورة القومية التي تجسد قيمة العمل والنجاح وكيف يعيش الفرد في المجتمع المعاصر في جوهر متعززة تمثل في الشعور بالذات الإنساني الحميم، وكيف وضع الإنسان المعاصر اعتبارات مصلحته الذاتية على رأس اهتماماته مما أدى إلى الشعور بالعزلة والتشتت. ومن بين النتائج التي ينتهي إليها البحث أهمية الدور والوظيفة التي تلعبها الأسطورة باعتبارها عاملا قويا للربط بين الأفراد، والتأكيد على أن الدروس والعبر التي تصل إليها عبر العصور والتي تمثل خلاصة التجربة الإنسانية تظل دومًا مصدرا للتعلم والإلهام. وأخيرا يبرز البحث من خلال معالجة "مامات" للأسطورة في مسرحيته كيف أن الإنسان، رغم محاولاته المستمرة لغلق الأبواب على نفسه والعيش في عزلة، يظل جزءًا لا يتجزأ من نسيج مجتمعه.
Introduction

As a social critic, David Mamet exposes the moral and ethical decline of the American culture: a corrupted and exploited business ethos, a bankrupt sexual morality, the violence that prevades the cities, and the wide-open spaces that isolate the individual in society. In most of his works, Mamet focuses on the relation of man to his society and the manner in which he exists during times of cultural disintegration, yet he refuses to offer the means or solutions by which the country can heal itself, and this is where his appearance as a social critic is different from most social dramatists. Moreover, there exists another level, a richer metaphorical subtext, than the criticism that exists on the surface of his plays. This paper attempts to study the way in which Mamet is not simply writing social criticism; rather he extracts what lies beneath human experience and gives it the appearance of social criticism. In other words, Mamet's social commentary is a way through which we can observe concerns of a more universal and timeless nature.

This paper reveals that there are strong mythological undercurrents beneath the surface of Mamet's works. Thus, it is necessary for Mamet's reader to distinguish two worlds to appreciate the full impact of his work. One world is simply that of the play, how does Mamet create "his" world, and how does it reflect the culture about which he writes?. The other level or world that should be explored is that of myth. It is the existence of this world
that helps develop the metaphoric richness of Mamet's work. Mamet believes that we respond to a drama to the extent that it corresponds to our dream life. He says:

Even in the most rational plays, the element which has the power to move us is not the rational element or the polemic element but the mythic element. It is the unresolved, not the resolved conflicts which matter. We see this in our everyday society and in the decay of disparate mechanisms: government, Religion, Theatre. The responsibility of the theatre is to tell us about our national unconscious to make our dreams clear (Bigsby, 1992, p.203).

What is evident here is Mamet's belief in the relationship between dreams and drama; and a level of symbolic imagery out of both could be created. For as mythographer Joseph Campbell suggests, myth is the public dream and dream is the private myth. (Campbell, 1987, p.35).

In other words, if drama is a public window through which the dream life of a culture can be exposed, myth can strengthen the meanings of that dream life. C.W.E. Bigsby has said that in Mamet's work we find "a mechanism for perceiving truths which are lived but not always expressed or even perceived for what they are" (Bigsby, 1993, p.196). Mamet attempts to depict an internal reality, not necessarily an external one, which
asserts the existence of myth in his work. For David Mamet, the closest analogy to the theatre is the dream.

In other words, the logic of the theatre, as Mamet suggests, should be that of the dream, addressing anxieties and needs which the rational mind sublimates.

The next step is to arrive at a suitable definition or theory of myth. One theory of myth is anthropologically based. This theory suggests that myth is a fiction originated to explain an old custom whose real meaning has been forgotten. The anthropological school developed the "ritual theory" of myth, suggesting that myth exists to justify the celebration of certain rites such as birth, marriage, or death. William Righter says that this theory of myth "is not so much a form of saying as of doing; it is less explanatory in a conceptual sense than the verbal accompaniment which gives a vague frame of reference to an activity."(Righter, 1975,p.41) In other words, ritual can be defined as a repetitive activity, dramatizing symbolically the essential economic, biological, social, or sexual needs of a society. (Righter, 1975, p.42) The ritual or anthropological school of myth sees myth in its functional use within a culture, binding the individual to a religious, cultural, or social structure.

Psychological theories of myth, such as those represented by Carl Jung, Joseph Campbell, and others, suggest that myths are products of the imagination, revealing deep-seated hopes, desires and conflicts of the human psyche. According to these theorists, myth interprets objective experience in a symbolic manner, suggesting paths to psychological wholeness. This dimension is available only to the imagination, and serves as a connecting link between the physical plane
of existence and the inner self (Campbell, 1986, p.18). The psychological theory of myth is significant in relation to Mamet to explain his psychologically oriented plays.

A third theory suggests that the psychological features of myth can be transcended to arrive at metaphysical ones. Penetrating past a psychological function, myths can reconcile waking consciousness with the eternal mysteries beyond known experience. It seems that the metaphysical function attempt, both to penetrate past the psychological realm and to enter an interior, but eternal and metaphysical dimension. In fact, much symbolist drama utilizes mythological symbols and narratives. What the metaphysical or religious theory of myth suggests is the existence of a kind of world religion that rests beyond known ones and attempts to give universal answers to what may be considered ultimate questions. (Doty, 1986, P.21).

Yet another theory or school of myth explains myth as a means to validate and maintain an established social order by shaping the individual to the requirements or desires of a certain socially conditioned group. This social function of myth is developed by Clyde Kluckhohn:

Myths are the instruments by which we continually struggle to make our experience intelligible to ourselves. A myth is a large image that gives philosophical meaning to the facts of ordering life; that is, which has organizing value for experience (Kluckhohn, 1966, p.34).
Mythographer Stephen Ausband develops this theory of myth and identifies several of the myths that human beings create in order to explain what their society is or desires to be. For instance, Ausband cites the myth of the New Beginning as an American mythology which has grown around renewal as a vital element of American thought. This kind of mythology is a created one, developed to represent the desired features of American culture (Ausband, 1986, p. 17).

This brief survey embodies the major problem of this study: definitions and functions vary so dramatically from theorist to theorist that locating a suitable definition or theory to adopt becomes a daunting task. The other problem is to answer such hard questions as: How do we define myth and its place in Mamet's plays? How do the myths function in his plays? What is he attempting to do with these myths?

According to the evidence from the plays, Mamet's sense of myth can be defined as a controlling symbolic image or narrative that is metaphoric of the social, psychological, or metaphysical conditions of a culture. Social myths help define man's place in a cultural process, or examine an exemplary truth of a certain culture. This exemplary truth is something Mamet works with consistently in developing the thematic content of his plays. The social myth that Mamet most frequently explores is that of American success. This myth is a social one, having less to do with psychological or metaphysical concerns than with the themes and fictions that a culture develops in order to suggest what it is or desires to be. The theme of American success is an idealistic expression of American existence: anything is possible; go west young man; pull yourself up and make
something of yourself. Rooted in the promises of renewal and opportunity, the success myth is one of the prevailing national mythologies of America.

Mamet also employs myths that represent psychological growth, reconciliation, or transformation within the individual. He frequently uses mythological motifs to examine a central character’s shift in consciousness over the course of a play. In other words, the myths have little bearing on an external, objective reality but are instead indicative of an internal journey. According to Campbell’s theory, this use of myth treats objective reality in a metaphoric manner, and is symbolic of psychological transformation.

Mamet also uses myth as an aid in opening up a metaphysical world. There is a group of Mamet’s plays that goes beyond questions of traditional psychology and deals with phenomena that can be best considered nothing less than spiritual or occult. Myth is used in these plays as a way to see beyond an objective world, to help make the invisible visible. The function of myth is similar to one that Campbell describes when he says that myth reconciles waking consciousness with the awesome mystery of the universe, beyond the preconceptions and preconditions of human thought (Campbell, 1987, p.36). In this respect, myth helps human beings transcend the limitations of material existence, and connects them with eternal process.

One can argue that myth is the hidden power source that rests deep beneath the surface of Mamet’s plays. It is the skeletal system that gives shape and form to the work, but it is not necessarily seen at first glance. For instance, a large number of Mamet’s plays deal with the
myth of American success. Separately, these plays deal with quite different characters and situations. Yet, if these plays have been stripped layer by layer, we reach a common denominator, a mythology that presupposes America as the land of opportunity and renewal. In other words, these plays utilize the same theme, but in wildly different keys. Yet one thing is clear: the depth of his work is aided by the condensed shorthand of a symbolic richness that myth is able to deliver. It is an imaginative kind of language and carries with it the whole scope of mankind's creative imagination. Mamet taps into this power source, using it as a primary means to enforce meaning in his plays.

The question remains, however: what does Mamet do to the myths? Does he confirm them? Revise them? Destroy them? Depending on which play one studies, he does all three. In *American Buffalo* for instance, Mamet reveals himself as a destroyer and revisionist of the national myth of American success. One may argue that there was, perhaps, some truth to the success myth that Mamet explodes in his play; but far from an exemplary guide for human action, the myth is presently perverted into an excuse for exploitation and manipulation.

**Anti-myth(Definition and function)**

In many of Mamet's plays, the "anti-myth" plays a prominent role. Simply, anti-myth offers similar structures to myth: exemplary models for human action, and ways to explain the individual's place in the normally associated with myth, however, it also reveals the opposite of the myth's potential and capacity. One of the major functions that myths carry out is the connectedness between all members of humanity. Richly metaphorical stories explain the common
concerns and questions that humanity has shared for centuries. Myth indicates the potential in being alive, and the capacity for psychological or spiritual transformation.

Anti-myth reveals an inversion of these features. Rather than fostering the binding of the individual to the larger human community, it severs him from communal concerns and leads to isolation and divisiveness. Many of Mamet’s plays reveal the individual isolated in society, and the open spaces that develop between people are a sign of the ways in which anti-myth disrupts and splits human relatedness. Anti-myth focuses, not on psychological or spiritual wholeness, but on self-serving and self-interested agendas and desires. It indicates a culture where exploitation is commonplace and the typical transactions are based on getting something for nothing. Its major features are aggression, dominance and conquest; fueled primarily by greed; anti-myth is not life affirming, but life denying, and indicating an enervating culture which drains human qualities from humanity.

The plays that explore anti-myth are primarily about loss: the loss of a national mythology that was perhaps at one time true; loss that occurs when material gain becomes the dominant focus of existence; the loss of human contact between people. Mamet destroys these anti-myths, yet does not provide any alternative myth that might fill that void, which is, in fact, a central part of his strategy.
American Buffalo

American Buffalo is a significant example of the manner in which Mamet utilizes anti-myth in his drama. The myth of success is a familiar one in the American myth system. It indicates the fundamental features of the American dream: boundless opportunity and economic abundance just around the corner. Mainly concerned with economic success, it is tied directly to the features offered by a capitalist society. In addition, the opening of America's frontier helped develop a certain kind of ethic and certain kind of hero. Mamet, however, talks of an American dream gone bad. Locked in the stranglehold of a consumer society, his anti-myth of success is ethically and morally bankrupt. Mamet's version of the myth is not a model for opportunity and renewal, but instead an excuse for exploitive actions; and the "frontier ethic" that helped constitute the myth is a manifestation of greed. Mamet writes:

...in America we're still suffering from loving a frontier ethic...that is to say, take the land from the Indians and give it to the rich. The ethic was always something for nothing. It never really existed when the American frontier was open. (Gottlieb, 1978, P.4)

American Buffalo premiered in Chicago in November 1975 at the Goodman Theatre. It won an Obie in 1976 and the New York Drama Critics Award of 1977 for the best play of the year. Since then, it has enjoyed a number of revivals in the United States and abroad. The play is about the ethics of business. Mamet, speaking in an
interview with Richard Gottlieb, disparaged the ethic that governs that world. He said:

(the play) is about the American ethic of business. I felt angry about business when I wrote the play. Businessmen left it muttering vehemently about its inadequacies and pointlessness. But they weren’t really mad because the play was pointless... no one can be forced to sit through an hour and a half of meaningless dialogue...they were angry because the play was about them. (Gottlieb, 1978, p.4)

The anti-myth about which Mamet writes is based on “getting something for nothing”. Yet it offers the major features of any mythology: an exemplary model for human behavior, an ordinary structure for existence; and a “transcendent” experience. In this anti-myth play, wealth is the transcendent or the source of the mysterious power that is opened to the receiver. Anti-myth results when the material, physical world is interpreted spiritually, when wealth is worshipped, when wealth gets spiritual significance and becomes godlike. Money is the object of all business deals but the crazy competition for that money “allows people to excuse all sorts of great and small betrayals and ethical compromises”. (Gottelib, 1978, p.5) Among the major features of anti-myth plays (works) are wealth, power, possession and consumption. In many of Mamet’s plays, his characters attempt to accumulate wealth and power but resort to behavioral extremes when a transcendent notion of wealth is denied them.
The play discusses important questions such as: what has happened to the culture's myths and rituals? Has the sacred been destroyed? What happens in a world without spiritual resources?

In American Buffalo, the characters resort to fraud, deception, and manipulation. This dynamic is an important one for Mamet: the behavioral effects of acquisition on the American consciousness erode basic human values, and manifest a decaying culture.

Mamet got the idea of an identical ethical perversity existing at both ends of the urban economic spectrum from Thorstein Veblen (1857-1929). Mamet was inspired to write about this kind of ethical corruption by Thorstein Veblen and confirmed him as his source in a letter to Jack V. Barbera.\(^1\) In considering the relation between Veblen's thought and American Buffalo, one should start with Veblen's Theory Of The Leisure Class (1899) which examines the effect of wealth on behavior.

John Kenneth Galbraith summarizes one of Veblen's key theories: "possession and consumption are the banner which advertizes achievement", which proclaims that the possessor is a success. (Barbera, 1981, p.274). The Theory Of The Leisure Class investigates the habits, life-styles and economic philosophies of the rich. The work focuses on a class in which individuals are judged not on moral and intellectual worth, but on wealth and position. Ownership is as central to the anti-myth about which Mamet writes as it is to Veblen's theory. For Veblen, "Ownership" began and grew into a human institution on which grounds unrelated to the subsistence minimum. The dominant incentive was from the outset the invidious distinction attaching to wealth; no other
motive has usurped the primacy at any later stage of development (Bigsby, 1985, p.74). Portions of Veblen’s theory are distributed throughout Mamet’s plays, and they help illuminate a revised vision of success. They suggest that the anti-myth emanates from the invidious distinction attached to wealth, and reveals the fundamental struggle for possession that drives his work.

For Mamet, Veblen is an important point of reference. He derived from Veblen the relationship between the businessman and the lumpen proletariat. As Mamet remarked:

There’s really no difference between the lumpen proletariat and stockbrokers or corporate lawyers who are the lackey of business. Though part of the American myth is that a difference exists, that at a certain point vicious behavior becomes laudable (Gottlieb, 1978, p.4).

In accounting for the emergence of an American leisure class, Veblen described the evolutionary move towards what he called a "predatory phase of life", when aggression becomes the accredited form of action and, (Booty’s trophies of the chase or of the raid, come to be prized as evidence of preeminent force’. It is a period in which the obtaining of goods by other methods than seizing comes to be accounted un-worthy of man… the performance of productive work, or employment in personal service, falls under the same odium for the same reason". (2)
American Buffalo asserts that American society is caught in just such a predatory phase. Don rejects the notion that his function may be to serve his customers, objecting of one that "He comes in here like I'm his fucking doorman" (Mamet, 1996, p.31). The essence of his life is the need to come out on top, to take advantage of others.

Many of Mamet's characters subsist on the lower economic strata of society. What they strive for is success, to possess wealth, women or power. The "motive", writes Veblen, "that lies at the root ownership is emulation; and the same motive of emulation continues active in the institution to which it has given rise and in the development of all those features of the social structure, which this institution of ownership touches" (Bigsby, 1985, p.42).

Mamet's characters in American Buffalo strive for success, to emulate those who have what they do not. According to Mamet, "American culture is collapsing not only because of misplaced priorities and values, but because of an anti-myth that validates any means to become successful". (Bigsby, 1992, p.124). The America Mamet decries is the one Veblen describes, a class society founded on the principles of private property where the economic process becomes a struggle between men for the possession of wealth.

American Buffalo, revolving around the purchase and planned theft of a buffalo-head nickel, contains a pun in its title. The Buffalo is a mythological symbol that has been deflated of all mythological and spiritual impact. For native American Indians, the Buffalo was sacred to their entire existence. It was a symbol of reverence, life, and the spirit. According to Joseph Campbell:
The basic hunting myth is a kind of covenant between the animal world and the human world. The animal gives its life willingly, with the understanding that its life transcends its physical entity, will be returned to the soil or to the mother through some ritual of restoration. And this ritual of restoration is associated with the main hunting ritual. To the Indians of the American Plains, it was the Buffalo. (Campbell, 1987, p.36).

Campbell explains that the animal prey becomes a divine messenger in the ritual of the hunt and a mythological identification occurs between the community and the animal that has given its life for community preservation.

In native American mythology, the Buffalo was divine; it was a god image. But during the westward expansion the white man was only interested in the acquisition of land, displacing the Indian (who was considered an obstacle to expansion), and killing off their god in the process. The Pawnees, according to Joseph Campbell, believed that:

In the beginning of all things, wisdom and knowledge were with the animal. For Tirawa, the one above, did not speak directly to man. He sent certain animals to tell mankind that he showed himself through the beast. And that for them, and from the stars and the sun and the moon, man should learn (Campbell, 1987, p. 37).
But when the white man pushed West, he turned a divinity into a desacralized object; for him, the only value ascribed to the Buffalo was a material one, the money that could be gained from a Buffalo's fur. In a review of the play, Harold Clurman wrote:

Look at the face of the coin, as reproduced on the show's playbill. The Buffalo looks stunned, baffled, dejected, ready for slaughter. The animal is antiquated, and the would-be robbers are a mess. The combination is symbolic (Clurman, 1977, p.313).

The coin of the title is symbolic because of the fact that it is of monetary value; the characters are guided by the rules of the business world and their whole fantasy robbery revolves around the sale of what was once considered worthless. Further, it has been observed that “Mamet's choice of the buffalo coin offers a further irony, for the buffalo, which once roamed the American plains in abundance .. has declined to near extinction, its value as a powerful presence in the expansion of the American West and the attainment of the American dream transformed into money” (Schlueter & Forsyth, 1983, P.18).

Perhaps another level of symbolism is intended by Mamet in that the American slang word for intimidation is to "Buffalo" someone, which usually carries with it some sense of trickery. (3)

This is the relevance of the symbol in American Buffalo and it points two aspects of the anti-myth. It is symbolic of a revised version of “American success”. The buffalo's
elimination was integral to the elimination of the Indian and subsequent westward expansion, revealing a frontier ethic that is a manifestation of exploitation and greed. Furthermore, it suggests the destruction of a once vital and functioning mythological system, which was eradicated in order to achieve other notions of success. As economic self seeking became a dominant way of viewing the world, a spiritual symbol was systematically wiped out, as well as the culture it had supported.

Like many of Mamet’s plays, American Buffalo encapsulates a scenic metaphor in the title. Steve Lawson has pointed out that it includes three different references. There is the great beast reduced to a nickle ; the mythical old west dwindling into a Junk shop; the guys who suspect they’re being “buffaloed” by a young punk. (Lawson, 1977, p.43).

Attaining the buffalo-head nickle is important for the characters in this play, but the spiritual importance of the symbol is completely lost on them. There is a significant tension between a material economic drive and a spiritual dimension that has been supplanted. Possession of the buffalo-head is adjunct to the white man’s killing of Indian divinity: wealth, not the spirit, is transcendent. Once the characters discover the monetary value of the coin, its possession is the over-riding goal of their existence, and they will do anything for its acquisition.

American Buffalo contains three characters: Donny Dubrow; the owner of the junkshop, where the action takes place. Bobby is his employee. Teach is Donny’s friend and associate. Admittedly, these characters do not have the stature normally associated with myth. Since the play utilizes
the Anti-myth of success, the ironic version of the success myth, the play's characters do not exhibit the heroic stature of mythological figures. Questioned about the use of such "low-life" characters as a representation of the business world as a whole, Mamet says, "the question is here are people who are engaged in theft and (it is said) that they are absurd because they failed. The question is would they become more laudable if they succeeded" (Stinton, 1986, p.14)

"American Buffalo" is about a triangle; the more or less competitive relationship among three men. Teach, the most insecure and jealous of this lot, tries to separate Bobby from Don's job and from his affections.

This spiritual void finds an expressive metaphor in the play's Junk shop setting. It is important that Don's shop is not an antique shop; his pieces are not valuable commodities. Metaphoric of the detritus of American civilization, the shop is mostly filled with worthless pieces that should be discarded rather than resold. Within the Junk shop, Mamet's three Petty criminals plan the robbery that symbolizes the corrupted, contemporary version of the American success myth. Don indicates that a number of his artifacts are from the 1933 Chicago World's fair, which celebrated "A century of Progress". In American Buffalo, once expensive souvenirs have been relegated to the Junk heap, showing a present social decline in stark relief against "a century of Progress". The irony is further magnified when two characters discuss those souvenirs. They refer to the fair as "the thing"; they lack the knowledge to clearly articulate what "the thing" was, the significance of "a century of progress" completely lost on them.

The characters in American Buffalo thus exclude history from their lives; they live in a marginal subculture that does not recognize its importance other than as the source of
a few clichéd expressions occasionally dragged out to make a spurious point. When they refer to the exhibition as “the thing”, this indicates both their apathy and their sense of dispossession; the “progress” that the event symbolized has completely passed them by and so the exhibition is not even dignified with a proper name. The castoff symbols of America past include souvenirs from 1933 Chicago’s fair, is reduced in the rhetoric of the junk shop trio to” the thing”.

Among this testimony to national pieties stored in the shop a customer finds a buffalo - head nickel for which he offers eighty dollars. Previously unaware of its value, Don insists on ninety dollars, but far from satisfied by his windfall, he is sure that the coin must be more valuable and that he has been exploited. Don plans to break into the man’s apartment and steal what he presumes must be his collection of coins.

To assist him in his enterprise Don enrolls Bob, a mentally damaged young drug addict whose dependency eliminates him as a threat. Don has set Bobby to spy on the man’s apartment but Don has returned to the shop before completing his errand. Don does his best to teach Bobby business lessons. In this situation, Don explains:
‘...cause there’s business and there’s friendship, Bobby...there are many things, and when you walk around you hear a lot of things, and who treated you like what you got to do is keep clear who your friends are Or else the rest is garbage, Bob, because I want to tell you
something. Things are not always what they seem to be (pp.78).

It is ironic that only Donny and Teach believe in appearances and they act on their perceptions of what they believe to be true. Their actions repeatedly backfire because those actions are based on faulty perceptions of the information available to them. Inspite of Don's insistence it is a serious fault not to separate personal values from business, Don is still capable of gestures of kindness and support. Gently he guides Bob, paternalistically encouraging proper eating habits in the youth. At the opening of the play, we see Don posing as a paternalistic adviser to Bobby, teaching him about breakfast and vitamins:

Don: Breakfast is the most important meal of the day

Bob: I'm not hungry

Don: It makes no earthly difference in the world, you know how much nutritive benefits you got in the coffee? Zero ...the stuff eats you up. You can't live on coffee, Bobby,...you can't live on cigarettes. You may feel good, you may feel fine, but something's getting overworked, and you are going to pay for it. (p.8)
But the most important lesson Donny delivers is about business. Discussing Fletcher's having stolen pig-iron from his friend Ruthie, Don explains the way of the world:

Don: He didn't steal it, Bob.

Bob: No?

Don: No.

Bob: She was mad at him...

Don: Well, that very well may be, Bob,

But the fact remains that it was business. That's what business is.

Bob: What?

Don: People taking care of themselves (p.16)

Anne Dean comments: "In Don's last line there is an essential truth in the world he and his cronies inhabit, selfishness and one's own interests obliterate all others considerations" (Dean, 1990, p.93). Bigsby asserts that "the world pictured in American Buffalo is one in which the pursuit of self interest is the only remaining certainty. In a society assumed to consist of patrolling police cars, personal insults, urban violence, and paranoia, survival is at a premium". (Bigsby, 1985, p.72)
When Bobby returns from an errand to their local hangout, he tells Donny that the mark left home, opening up the robbery for that evening.

Bob: I saw him
Don: Who?
Bob: The guy.
Don: Just now?
Bob: Yeah. He's going somewhere.
Don: He is.
Bob: Yeah. He's putting a suitcase in the car.
Don: What was he wearing?
Bob: Stuff. Traveling clothes (pp.22-23).

This situation is pivotal for two reasons. First, it is the inciting moment of the play's central action. Second, it involves a secret known only to Bobby which is to have significant consequences by the play's end. The secret is an important structural device of the well made play. Mamet uses a variation when he withholds the secret from the audience as well as the other characters until the play's climax. As the play continues, we learn that key actions are motivated by delusions about what things appear to be, and the well-made framework comes into question when the elements upon which it is built are found to be untrustworthy.

Near the end of Don's valuable lessons, which are at the heart of the play's theme, the third character, Teach,
enters Don’s junk shop. Donny’s advice to Bobby concerning friendship and business is soon forgotten once Teach enters the picture. When Teach appears on stage, Don’s advice is put to test. Ironically, it is Don whose perception of the difference between business and friendship is found to be sorely lacking. Teach reverses Donny’s lesson about the value of true friendship to impose himself between Don and Bobby arguing:

Teach: We’re talking about money for Chrissake, huh? We’re talking about cards. Friendship is friendship, and a wondrous thing, and I am all for it… but let’s just keep it separate (p. 15).

Teach sees himself as a businessman who won’t allow business to impinge upon his personal relationships, but he is in fact the least capable of the three men in terms of separating the two. Speaking of a card game in which he has lost a great deal of money to Fletch and Ruthie, he pretends that his “business” mentality has not influenced his thinking:

Teach: We’re talking about money for chrissake, huh?

We’re talking about cards. Friendship is friendship, and a wonderful thing, and I am all for it. I have never said different…but let’s just keep it separate huh?…and may be we
can deal with each other like some human beings. (act I,p.15).

Teach proclaims "I am a businessman, I am here to do business. I am to face facts" (p.83). He quietly ascertains that Don and Bobby are planning the robbery of the coin collection and wastes no time in trying to get a piece of the action for himself, even if it means pushing Donny’s friend Bobby out of the picture" Teach explains:

Teach: He’s a great kid, Don...Don’t send the kid in.

Don: I shouldn’t send the kid in?

Teach: No...What we are saying here?

Loyalty. You know how I am on this.

This loyalty ...It turns my heart the things you do for the kid...All I mean any guy can be too loyal, Don...Don’t be dense on this. What are we saying here? Business...All that I’m saying, Don’t confuse business with pleasure. (pp.33-34)

Nothing is more important to Teach than business, and Donny gets drawn into Teach’s peculiar notions of business and free enterprise against his better judgment, and at the expense of his friendship with Bobby. It is not until the end of the play
that Donny recognizes the disservice he has done to Bobby, and attempts to rectify the situation.

Once Donny divulges the plans of the robbery, Teach insinuates himself into the scheme. Bobby has been chosen to perform the robbery before Teach entered the picture, but Teach convinces Donny to abandon the previous plan and eliminate Bobby from the robbery.

Teach: All I'm saying, the Job is beyond him. Where's the shame in this? All that I'm saying there's the least chance something might fuck up, you'd get the law down, you would take the shot, and couldn't find the coins whatever: if you see the least chance, you cannot afford to take that chance! Don? I want to go in there and gut this mother-fucker. (P.35).

Money talks and the decision is made: Bob is out of the deal. For Teach and Don, "The business context of their preparations not only offers a guise of self-sufficiency, but also provides a license, exerts a pressure, for personal betrayal". (Novick, 1980, p.521).

As we can see, previous rules or agreement are back-grounded for new ones. Mamet himself notes that "whenever two people have to do something they make up rules to meet just that situation, rules that will not bind them in future situations (Gussow, 1977, p.13). Don negotiates with Bob, when he and Teach decide to commit robbery without Bob. Don corrects Bob about the amount of money they agreed upon as compensation for his rejection, insisting; "that's not
the deal", and Bob responds," We could make it the deal. Donny? We could make it the deal. Huh?" (p.42). At another point, Teach admits "It's hard to make up rules about this stuff"(p. 47). Then, Teach asserts: the "The whole Entire world. There is no Law. There is no Right and Wrong" (p. 48). Ruby Cohn comments:

Not only are Mamet's characters unaware of these contradictions, they also have no sense of the slippage of words. Given the dubious ethics of business, "right" and "wrong" are very slippery terms. (Cohn, 1992, p. 113). There are no true, solidified standards or codes of action. The characters invent their own standards to suit their own best interests. The same spirit of "Chimerical" law that excludes Bob from Teach and Don's burglary plan surfaces in a discussion between Don and Teach regarding a card game. While Donny admires Fletch, the offstage player who wins at cards, recommending him to Bob as an example to emulate, as one who has the "skill and talent and the balls", (p.4) to succeed, Teach has a different view. Teach attributes Fletch's win to cheating: "(He) spills his fucking Fresca . And we look down.. when we look back, he has come up with a king-high flush." (p.81). For Teach, dishonesty and success are synonymous: if Fletch succeeded where Teach failed, Fletch must have cheated.

What concerns Mamet in American Buffalo are the boundaries or the rules of behavior. Mamet concludes that "when law is chimerical, rules are anarchistic" (Mamet,1986, p.38). There are no longer values that survive the moment; hence there is no responsibility to be denied and no redemption to be claimed.
Teach, as the play's spokesman for America's corrupted ideals, has taken the trouble to define the capitalist system to Don:

Teach: You know what is free enterprise?
Don: No, what?
D: The freedom...
T: ...Yeah?
D: of the individual...
D: Yeah?
Don: Oh-huh...
T: In order to secure his honest chance to make a profit. Am I so out of line on this?
D: No.
T: Does this make me a commie?
D: No
T: The country's founded on this Don.

(pp. 72-73)

Teach explains that any attempts at profit-making are honest. Teach's notions of right and wrong are tangled up in his vision of the American myth of opportunity: that everyone has a right to try his hand at success. Since the robbery is his only chance in the dead-end world of the junk shop, Teach intends to take it seriously. For this reason, he translates the robbery into a business deal and begins negotiations by persuading Don to exclude Bob from the deal. As Bigsby says "Mamet's characters translate free enterprise as total licence and morality as the exercise of an anarchic will". (Bigsby, 1985, p.83)
Fletcher never shows up, and when Bobby returns to the shop with a buffalo head nickel he wants to sell Donny, both Donny and Teach assume they have been betrayed by Fletcher and Bobby. Bob's subsequent announcement that Fletcher has been mugged "by some Mexicans" and is in hospital with a broken jaw convince Teach that he and Don have been double-crossed on the hold-up. Teach picks up a piece of junk and hits Bob viciously on the side of the head because he reads the information as it appears to be; he thinks Bobby has foolishly returned to sell Donny one of the coins he has stolen. Don has allowed it to happen: "you brought it on yourself", he tells Bobby (p.98). Ann Dean comments:

Thus, even the tenuous love that exists between Don and Bobby can be stretched to the breaking point when business interests are at stake... (Dean, 1990, p.93)

As Teach hits Bobby, he screams in frustration about the absence of the very values he has steadfastly discounted in the course of the play: "The Whole World. There Is No Laws. There Is No Right And Wrong. The World Is Lies. There Is No Friendship" (p.103)In fact Bobby purchases a buffalo-head nickel and offers it to Donny hoping he could sell it for a profit. When a phone call from Ruthie, verifies Fletch has indeed been mugged, an agon尼斯is occurs in Donny. He has been suckered by an illusion, and has forsaken his friend because of a business deal.

Presumably angry at himself as much as Teach, Donny begins pushing Teach around the shop when the major turning point occurs. Bobby reveals he had not seen the mark leave his home. He plans to make Donny happy and place...
Bobby back in his mentor's good graces. In order to succeed in a materialistic world, Bobby utilizes his imagination to concoct an elaborate delusion that has grave consequences by the play's end. In this way, delusion forms the centre of the play, and the secret that sets the play in motion and upon which the well-made form rests, completely lacks substance. Each action is built upon the information that Bobby reveals early in the play; he has seen the mark leave his home. This is the major appearance the play rests on, and other appearances logically follow it: Bobby and Fletcher pull off the robbery themselves; the story of the mugging is a ruse to throw Donny and Teach off their trail; Fletcher must not have been mugged since he hasn't been admitted to hospital. But none of these perceptions has any substance, and the actions based on those perceptions have no foundation to support them.

In a well-made play the complex network of discoveries and revelations all find their way back to the essential secret that moves the play, but when that secret reveals delusory information, it mocks the structural integrity of well-made form.

Mamet sums up the play in an interview with Ross Wetzsteon:

What I was trying to say in American Buffalo is that when you step back from the moral responsibility you've undertaken. You're lost. We have to take responsibility. Theatre is a place of recognition, it's an ethical experience, it's where we share ethical interchange. That's why Don's exclusion of Bob from
the deal is so crucial (Wetzsteon, 1976, p.101).

There were a number of reviewers who, when the play premiered, recognized it as a serious and important work. Robert Story considers that American Buffalo is "arguably Mamet's best play... perhaps because he is working within a continuous two-act structure, perhaps also because he is not insisting self-consciously upon the comedy in his material ..he makes his characters behave with a consistency and economy of function." (Storey, 1979, p.11)

Frank Rich asserts that "it is one of the best American plays of the last decade... Mamet has created a combustible and sympathetic portrait of inarticulate American underclass dreamers". (Rich, 1983, p.17)

Mamet emphasizes that he intends his audience to learn something positive by watching a negative example. He makes the ethical lesson more acceptable and more entertaining, by making us laugh. The sources of this humor include the humor of general situation, the stories or Jokes of Mamet's characters and malapropisms. One example of malapropisms occurs in Act I when Teach is trying to convince Don both not to use Bobby in the contemplated theft and that he admires Don's relationship with the kid. Loyalty to Bobby, he says, is admirable. "This is swell. It turns my heart the things you do for that kid" (p.34). Ordinary people say "It touches my heart".

"It turns my heart" is an ironic comic blend of "it touches my heart" and "it turns my stomach". The misuse of the phrase is funny, but it also points toward the actual feeling that Teach has about this relationship, which upsets him for a variety of reasons. Clearly, he wants to exclude Bobby from the"
business deal" for his own selfish interests. But Teach is really disturbed at the closeness of Don's and Bobby's relationship, to be his own exclusion, to the point of jealousy. Thus, he undercuts his rival by criticizing Don for being "too loyal" to a small kid and by referring to Bobby's drug use. That's the dangerous territory, and Teach knows it. Don bristles, "You know the fucking kid's clean. He's trying hard, he's working hard, and you leave him alone"(p.35). Teach responds with sarcasm, but Don's objections gradually weaken. The seed for the betrayal has been planted (Hudgins,1992,pp.203-204)

On the other hand, some critics considered American Buffalo as little more than a foul-mouthed expose of the criminal underworld, well-rendered but fundamentally meaningless. John Beaufort considered that "the playwright's observations were too superficial to waste time upon. It is a very thin slice of low life" (Beaufort,1977,p.368). Brendan Gill described it as "a curiously offensive piece of writing...street language attempting in vain to perform the office of eloquence". (Gill,1977,p.54). Indeed, these critics were accurate in their perceptions. The center of the play is missing, and here is a central strategy of American Buffalo. The Anti-myth of success is not one of opportunity, but one of exploitation. Positive myth-systems have eroded from existence, and morals have soon followed. Mamet's characters are pushed to behavioral extremes, forced to resort to delusion and lies to assert themselves in an existence of limited potential. There are fundamental gaps between desire, possibility and fulfillment. Since characters lack the essential tools to shape existence...intelligence, language, actions...they resort to fabrications and delusion to attain their desires.
Bobby’s revelation sends Teach into a fit of rage. In the climax of the play he trashes the shop using as his weapon the implement used to drain blood from dead pigs. The pig is a symbol of male power and ignorance, and symbolizes a brutal and ignorant male culture that drains life of emotional or spiritual significance. Don, Teach and Bobby are representatives of this culture.

The absence of women in American Buffalo underscores, as C.W.E Bigsby has suggested, “The pathetic importance of Mamet’s businessmen”. (Bigsby, 1985, p. 76). But it has a much deeper significance: the exclusion of women from these plays implies that the values with which the male characters traditionally associate such as the “feminine” compassion, tenderness, empathy, spirituality are seen as threatening to their business ethos: in the business world such values are characterized as weakness, and weakness is despised as effeminate and dangerous”. By banishing women and the values they represent from American Buffalo, Mamet thus shifts the focus to an examination of “the cocoon of the traditional American masculinity myth” inside which he himself was raised (Fraser, 1976, p.7). Women constantly hover on the margins of American Buffalo, especially Ruth and Grace, friends of the three central male characters but though repeatedly invoked, their presence never literally materializes. There is no place for them on a stage as what they represent is debased and valueless, when women are routinely referred to as “broadb”, “bitches” and “chicks”.

The three characters (Don, Teach & Bobby) who represent this male culture are oblivious to their inaptitude as well as the enervating atmosphere of their own environment. Ironically, Teach becomes the spokesman against the anti-myth he himself embodies:
Teach: My Whole cock sucking life...
The Whole Entire World.
There Is No Law
There Is No Right and Wrong
The World Is Lies
There is No friendship
Pause

Every God forsaken thing
I went out on a limb for you
Pause

You don’t know what I go through.
I put my dick on the chopping block.
Pause
I got out these. I'm out there every day.
Pause
There is nothing out there. (pp.103-104)

The irony is that Teach is somehow right. Laws and rules are abrogated in favor of self-serving and self-justifying ideologies of wealth and power. The world is permeated with deception, and friendships are betrayed for business deals.

Teach's tirade significantly contributes to the existing chaos of the characters' surroundings. The set is filled with objects that have lost their purposefulness. Teach increases the inherent randomness of this system. American Buffalo reveals a strong movement from equilibrium to chaos. The play begins with a strong sense of stability. As the robbery is plotted and tensions increase, characters' violent tendencies erupt in physical violence: Teach violently attacks Bobby; Don attempts to assault Teach, and Teach trashes the shop with the "dead-pig sticker". The equilibrium of acceptable modes of
behavior is overtaken by the confusion exemplified in physical violence. Mamet is interested in the solace and equilibrium needed as society heads toward chaos. *American Buffalo* is "a play about failed relationship, about the gap between people whose need for contact is as real as their evasion of it". (Bigsby, 1992, p. 212)

There is a real affection between Don & Bobby, albeit one betrayed when it conflicts with business. Teach has a great need to be liked, except that he can never permit any one access to his inner life. Bobby, too, desperately craves affection. Ironically, that need can never align itself with action. The characters never quite allow themselves the openness necessary for genuine contact. Something has destroyed their sense of being a part of a community of selves.

The movement toward chaos in this play is reinforced by the way in which Mamet utilizes language. Mamet is an absurdist in that language has an essential inability to communicate meaning effectively, exemplified in the scene in which Don and Teach discuss the Chicago World's Fair

Teach: What're these?
Don: those?
Teach: yeah?
Don: They're from 1933.
Teach: From the thing?
Don: yeah...The thing, it ran two years, and they had all kind of people every year. They're buying everything they can lay their hands on that. They're going to take it back to Buffalo to give it, you know, to their aunt, and it mounts up. (pp.17-18)
"Thing" is a familiar catch word used by the characters limited in vocabulary, and reveals their fundamental inabilities to clearly articulate ideas. As Robert Story remarks:

"The need that all three characters have for action ... is reflected in the sense of movement that characterizes their language infecting their moral life with a buzzing, booming, confusion" (Storey, 1979, p.11).

Anne Dean argues that **American Buffalo** is "a play that is essentially concerned with language rather than deed, and Mamet advances the action almost entirely through that medium" (Dean, 1990, p.99) Mamet himself has said he understands language, talk as action (Mamet, 1986, p.3). Because of this concentration on the power of language rather than upon overt stage action, some critics have denounced the play as tedious and static. Other critics assert that Mamet's language is, on the contrary, vibrant and rich with movement.

Mamet's characters come from the urban working or low professional classes, and their language takes on the pace of the city: fast paced, hard edged, and sexually charged.

Teach and his colleagues constantly converse in the language of business while planning to commit robberies, but Mamet sees them as no more corrupt than those in the very highest echelons of power.

Mamet's inspiration for the kind of characters he uses in **American Buffalo** derives from his association with those who live on the borders of society. W.H. Macy, an actor friend of Mamet, has noted that "he's played cards with some guys
you’d never wish to meet.” (Allen, 1984,p.40). In fact, Mamet himself used to be known as “Teach” on his visits to a “North side junk shop” when he used to play poker. (Christiansen, 1982,p.11)

Mamet’s characters exist in a debase wildness in which morals seem to have no place. Their sense of morality is derived from the false standards by which they live. For all their immorality and weakness, Mamet feels affection for his characters; his compassion for them is as vital a fact in his work as is the contempt he expresses for their values and the corrupt culture they represent. Mamet has said “I don’t write plays to dump on people. I write plays about people whom I love and am fascinated by” (Mamet, 1984,p.38).

There is plenty of humor in Mamet’s characters’ cursing, which is quite realistic, but almost always provokes laughter in the audience.

Affirming Gertrude Stein’s observation that “it is something strictly American to conceive a space that is filled with moving” (Stein, 1979, p.2). Mamet’s characters fill the void with a medley of curses, speculation, lectures creating what Clive Barnes once called “a poetic, almost choral use of words”: “the linguistic use of words that have no meaning as such except to add emphasis, stress or rhythm to a sentence or even phrase obviously fascinates Mamet.” (Barnes, 1981,p.11)

Jack Kroll praised the “kind of verbal cubism” in which Mamet’s characters speak, because Mamet is “the first playwright to create a formal and moral shape out of undeleted expletives of our foulmouthed time (Kroll, 1977, p.79). Many critics consider Mamet’s use of language as an achievement. If the vocabulary of men such as Bobby, Teach
and Donny is impoverished, Mamet's rendering of it reminds us that vocabulary is only one of the reasons of language. Teach does have an eloquence when expressing his sense that he has been abused. Galled by Grace and Rutbie, he tells Don:

"Only (and I tell you this, Don) Only, and I'm not, I don't think, casting anything on anyone: From the month of a Southern bullydyke asshole ingrate of a vicious nowhere cunt can this trash come" (pp. 10-11). This sentence, so politely diffident at first, ends in the most vulgar language when Teach has been denounced as "trash". Teach's language is hard edged and sexually charged.

It is ironical to note Teach's frequent use of religious terminology; he frequently uses the phrase "God forbid" and states that "I pray we don't (need a gun)". In a spiritually desolate universe, the evocation of God seems a kind of good-luck incantation. It has certainly lost all of its deeper resonance. Thus, as Teach calls upon God to defend him while he plans to commit a crime, he arms himself against the violence on the streets. He is terrified of violence and yet he has become what he most fears. He is one of the people he tries to avoid. Because of his terror of urban violence, Teach Paradoxically admires the police force:

Teach: They have the right idea. Armed to the hilt. Sticks, Mace, knives... Who knows what the fuck they got. They have the right idea social customs break down, next thing everybody's lying in the gutter. (p.88).

The irony of Teach's logic is that he breaks the law and yet depends on it for protection.
Conclusion

American Buffalo represents Mamet’s anti-myth of American success. It reveals a debased culture in which the individual distinction attached to wealth promotes economic self-seeking. The world “out there”, as Teach says, is a void. The structures that give life substance, such as the buffalo for the American Indian, are eliminated, and there is a feeling of emptiness in the play. Mamet sums up the message and the concern of the play:

The play, to me, is about an essential part of American consciousness, which is the ability to suspend an ethical sense and adopt in its stead a popular, accepted mythology and use that to assuage your consciousness like everyone else is doing (Cohn, 1992, p.113)

Mamet’s characters feel the need for relationships, but seem incapable of sustaining them. They exist in an environment in which compassion is seen as weakness and friendship merely a temporary congruence of interests. Self-protection becomes a basic rule and the price is a fundamental isolation. At the end of the play, the audience is left with a wrecked Junk shop and an injured boy. However, that boy is being taken to hospital by one man who sincerely cares for him. American Buffalo is not, finally, a bleak cry of despair that offers no hope. There is hope in play, and it resides in the relationship between Don and Bobby. There are enough hints of his true affection for Bobby. The mere existence of their relationship suggests optimism and compassion.

Mamet’s use of anti-myth in American Buffalo reveals a distorted, debased national mythology. Myths help the
individual perceive truths of human experience that appear cloaked in worldly occurrence. The myths also help promote connections between individuals. This is another fundamental principle of myth; the problems explored in them are common human problems. The myths help bind individuals to one another, indicating that the lessons learned through the ages are capable of being learned today. Mamet's play reveals the wide open spaces in contemporary living. Intimacy in human relationships is lost, self-serving agendas help leave the individual isolated and alone. Yet, the utilization of myth suggests something else; man is inter-related and interconnected. Rather than alone, he is part of the greater consciousness of mankind, tying together the past, the present, and the future.

American Buffalo is a play that can be viewed on a number of different levels: as a satire on Modern America, as a critique of the American business ethic, and as an expose of the decline of communication in urban society.
Notes


3- The supplement to the OED cites the verb "Buffalo" as North American slang meaning "to overpower, or constrain by superior force or influence; to outwit, perplex". Also, see Bruster, Douglas. "David Mamet and Ben Jonson: City Comedy Past and Present", Modern Drama. Vol xxx111, No.3, September 1990, p. 343.
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Textual, Contextual and Extra-Contextual Considerations for Gender Identification in Translation

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Abstract

This study investigates the impact of personal gender-neutral names on the rendition of certain English running and non-running text genres into Arabic, a language that inflects for gender and number. Three groups of different levels of translation experience and expertise are used. The results show that professional translators are better performers than translation lecturers and translation students. Differences among the groups are accounted for in terms of the groups' richness of experience and the attention they paid to gender disambiguating factors. The paper concludes with suggestions and recommendations for translation students, lecturers and course and syllabus designers.
دور المؤشرات النصية والسياشية وغير السياقية في تحديد جنس الأسماء عند الترجمة

ملخص

ما هي المؤشرات التي تعين على تحديد جنس الأسماء في النصوص عند الترجمة من اللغة الإنجليزية إلى اللغة العربية التي تنصف بحساسيتها للنوع والعدد من حيث التذكر والتأنيث والجمع والإفراد؟

اعتمدت الدراسة على ثلاث مجموعات منفاوة المستوى والخبرات في الترجمة. تشير النتائج إلى تمييز المترجمين المعتنفين عن غيرهم في التعرف على جنس الاسم وذلك من خلال المؤشرات النصية وغير النصية والخبرات الحياتية. وتقدم الدراسة مجموعة من النصوص والمقترحات التي يمكن أن تستخدم في تدريب طلاب الترجمة كما يمكن أن تستخدم في تصميم البرامج التدريسية المخصصة بالترجمة.

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Key words: Translation and gender disambiguation, transliteration, personal gender-neutral names

1.0. Introduction:

Personal names play significant roles in inducing and responding to racial, religious and ethnic oppression. A name is usually reserved for one gender or the other, but not always. Thus, it will not always be possible to know whether the particular person referred to is male or female. Therefore, an alien to the culture whose language and names are to be rendered into one's native language will have no certain clue as to the gender of the person referred to by name. This creates problems when translating English texts into Arabic, a language that is generally sensitive to gender distinction.

1.1. Motivation for the Study

The idea for this study came from a personal incident that during my employment in the Faculty of Foreign Languages and Translation at Ajman University of Science and Technology in the United Arab Emirates. In the United Arab Emirates all universities, private and public, are subjected to licensure procedures every four years for the accreditation of their academic programs. In the year 1998 a team of three assessors came to Ajman University to evaluate the translation program in my faculty. On that particular day I did not have a chance to meet the team. The assessors were given a list of names in English for the teaching staff on the program, together with their CVs. It so happened that my CV was not included and therefore they sent a fax to my employer asking for my curriculum vitae. The fax was written in Arabic and my name was used along with a female title. The reason for feminizing my name was made clear to me later on when the
person who sent the fax was informed that Dr. Tharwat is a man not a woman. The fax writer, of course, apologized and justified his situation saying:

"I am married to a lady from Pakistan and in Pakistan this name is only used for females."

This has made me realize that when a person comes across any personal name, he/she will, of course, decipher its gender in terms of his/her encyclopedic knowledge his/her knowledge of the world (see El-Sakran (2000) for more details). Therefore, it is assumed that any translator working on the transition of English texts into Arabic of the text types used for this study, without being given enough contextual clues, will have to depend mainly on his/her background knowledge (the culture he/she belongs to) to disambiguate the gender of any proper names. This, indeed, may result in grave consequences in the case of texts to be translated into Arabic.

The second reason for this study emanated from my experience in teaching a translation course titled "Translation of Documents and Correspondence". In this course translation students are presented with a variety of texts (memos, faxes, business letters, CVs, etc.) for translation from English into Arabic and Arabic into English. The students did not experience any difficulty determining the gender of the writer in the case of translating lengthy texts from Arabic into English as Arabic makes clear sex references. On the contrary, they faced gender problems in the translation of extremely short Arabic texts, such as faxes, notes and memos, employing first person pronouns, indicating a future action and tagged with a neutral personal name.
Likewise, the students faced serious problems in the translation of the English texts given to them in this course, especially when the writer's sex could not be obtained from the context or from the name itself. Watertight gender-specific (indicative) names such as Thomas, William, Andrew and Charles posed no gender
problems for the students taking this course. Yet, gender neutral names, for instance, Green, Allwood, Crystal, Kelly, Kerry, Kim, Lee, Liam, Lindsay, Lynsey, Meredith, etc., proved problematic for them.

1.2. Rationale of the study

The importance of this study emanates from the following:
1) To demonstrate differences in gender issues between English and Arabic which may result in inaccurate and inappropriate rendition of English texts into Arabic. Knowing the sex of the writer in English texts becomes an important factor in determining the selection of grammatical form(s) when translating into Arabic.
2) To show that in applications the sex of the text writer may be an important factor in his/her selection for/ exclusion from a job.
3) To draw translation students and translators' attention to contextual and encyclopedic factors used in the disambiguation of gender.
4) To Furnish recommendations for gender explicit writings which, would in turn, pose no translation problems for Arab translators.

1.3. Objectives of the Study

It is the purpose of this research paper to investigate the following:-
1) How sensitive are translation students, translation teachers and professional translators to contextual clues (outside and inside the text) in gender identification?
2) What options are available in overcoming gender indeterminacy?
3) What role does the translators' background knowledge (knowledge of the world) play in the disambiguation of the gender of personal names?
2.0. Literature Review

2.1. Personal Names: A Cultural Outlook

European languages distinguish names with an initial capital letter in writing. Most other writing systems do not distinguish upper and lower case letters (Crystal 1991:112). The science that studies personal names is given the name "onomastics" (op. cit.). Personal names are very carefully selected and given to newly born babies, both females and males. Some of the names given to children are names of holy men, events, seasons, places, omens, relatives, beloved deceased, personal traits and even animals. Some families give their children names that have their origins in religion. Others give their offspring abstract names that are associated with desired traits, such as Kareem (generous), Ameen (honest), Saeed (happy). Some other families, especially those of low socio-economic background, give their children funny and degrading names such as Al-Shahat (the beggar), Kheisha (sack of Linen), etc. These names are examples of what Crystal (ibid:113) has termed "apotropaic". They are meant to make the person(s) carrying them undesirable and therefore, insusceptible to "evil eyes". Most countries of the world do not have guidelines/rules for what name is for females and what name is for males.

It is a fact that some European countries (viz. France and Germany) have approved lists of names that must be used if a child is to be legally recognized. It happened in Germany that a resident Jewish family wanted to give their newly born female the name Yona but the German authorities refused to register the child since the name is used in Germany for males only. The family filed a case against the German authorities in question and is waiting for the court decision (Al-Khaleej Arabic Newspaper, 25th July, 2001). Although there are approved lists of personal names in France, some of these names are used for both sexes (e.g. Valerie). Of course, there are still names that are reserved for one gender.
2.2. Gender in Arabic and English

Gender is defined as a grammatical distinction according to which a noun or pronoun is classified as either masculine or feminine in some languages. The distinction applies to nouns which refer to animate beings as well as these which refer to inanimate objects (Baker 1992:90).

Arabic is a gender inflected language. Determiners, adjectives and verbs usually agree with the noun in gender. "Gender distinctions are generally more relevant in translation when the referent of the noun ... is human" (Baker 1992: 92). In Arabic gender information is incorporated in the form of the verb. Thus, it is difficult to render parts of an English text, containing personal names, into a language such as Arabic, in which gender distinctions pervade the grammatical system, without knowing a name's specific gender. Arabic with the exception of huma — (they) (masculine/feminine+dual) marks all second person and third person pronouns for gender, viz. anta (you) (masculine+singular.), antunna ananta (you) (feminine+plural), huwa هو (he)(masculine+singular), hiya هي (she)(feminine+plural), hum هم (they) (masculine+plural), and hunna هن (they) (feminine+plural). The Arabic pronouns that are left unmarked for gender are first person pronouns, viz. ana أنا (I) and nahnu نحن (we). However, except for emphatic purposes, Arabic pronouns naturally occur in discourses as pronoun clitics attached to the end of verbs.

By contrast, the English language makes very few gender distinctions in its pronominal system, viz. he, she, it, who and which. The English language tends to rely heavily on pronominal reference in tracing participants in the discourse. This practice helps translators decide the gender of the participants in the discourse through feminine and masculine pronouns. The use of gender-neutral personal names, such as first person, is very confusing for people of the same culture, when confronted in writing without any clues as to the sex of the writer unless, of course, the writer is known to the reader. The problem is
compounded for translators who have to translate English texts into Arabic with the first person singular pronoun and personal names that sometimes a name they may not have come across before. The absence of compelling rules for gender explicit names, in the majority of countries, has resulted in a plethora of names that are used for both sexes.

It is predicted that any mismatches between the real gender of the personal name and the translator's encyclopedic knowledge will, of course, yield inappropriate translations in terms of gender, as the translator will have recourse to his/her encyclopedic knowledge that might let him/her down. This will have serious legal implications in official documents and on some other occasions when a person's sex is changed into a woman/a man or vice versa.

2.3. Reference, Text and Context in Gender Disambiguation

Proper nouns are assumed to (Newmark 1988:70 and Farghal and Shunnaq 1999:59) to have singular and unique reference. The term "reference" is traditionally used in semantics for the relationship which holds between a word and what it points to in the real world. The reference of 'table' would therefore be a particular 'table' that is being identified on a particular occasion. In Halliday and Hasan's (1976) model of cohesion, 'reference' is used in a similar but more restricted way. Instead of denoting a direct relationship between words and extra-linguistic objects, reference is limited to the relationship of identity, which holds between two linguistic expressions. For example in:

Kofi Anan has resigned. He announced his decision this morning.

the pronoun 'he' points to Kofi Anan within the textual world. Reference, in the textual rather than the semantic sense, occurs when the reader has to retrieve the identity of what is being talked about by referring to another expression in the immediate context.
So, reference is a device, which allows the reader/hearer to trace participants, entities, events, etc. in a text. One of the most common patterns of establishing chains of reference in English, and a number of other languages, is to mention a participant explicitly in the first instance, for example by name or title, and then use a pronoun to refer back to the same participant in the immediate context.

Although Halliday and Hasan (1976) use a restricted notion of ‘reference’ based on textual rather than extra-linguistic relations, they still acknowledge that the relationship of reference may be established situationally. For example, a given pronoun may refer to an entity, which is present in the context of situation rather than in the surrounding text. The first- and- second person pronouns are typical examples in that they do not refer back to a nominal expression in the text but to the speaker/writer respectively. Third-person pronouns typically refer back (or forward) to a nominal expression in the text but may also be used to refer to an entity, which is present in the immediate physical or mental context of situation. An utterance such as, 'he is not back yet' is perfectly feasible, provided the speaker and hearer are clear about the identity of 'he', for example in the case of a couple referring to their son. Aziz (1998:129) argues that a reference is explicit if it satisfies two criteria:

1. It should be detailed and definite, and
2. It should refer directly.

The first criterion requires that the expression should convey clear and sufficient information to identify the intended referent easily and unambiguously. The second criterion states that the reference of an expression should be direct. For example, Kofi Anan in the example above refers directly to the individual in the outside world. According to Aziz (ibid:130) proper names meet both criteria of explicitness optimally; “they have all the information required to identify the referent, since they refer directly and uniquely”.

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Whether one holds the view that meaning exists in the text or in the situations involving the text in addition to other variables such as participants and settings, one cannot deny that a reader’s cultural and intellectual background determines how much sense she/he gets out of a text. In the final analysis, a reader can only make sense of a text by analysing the linguistic elements which constitute it against the backdrop of his/her own knowledge and experience (Baker 1992: 222).

The ability to make sense of a stretch of language depends on the translator’s expectations and experience of the world. Different societies and indeed different individuals and groups of individuals within the same society, have different experiences of the world. "The recall of past experience and knowledge of the world ... are not part of the meaning of a text," (Sinclair, quoted in Baker 1992: 221)

Yet, in certain non-running discourse genres (e.g. contracts, degree certificates, memos, curriculum vitae, job application forms, etc.), where no gender reference-revealing pronouns are used and where only proper names, generic nouns and first person singular pronouns are used, it becomes problematic for translators to appropriately render chunks of and whole English texts into Arabic. This is true when gender neutral proper names are used. For example, to render the adjective “married” in entry (7) in text (1) (Appendix (1)) the proper gender of the CV writer has to be known. If the CV writer is female, then this adjective will be rendered into Arabic as مزوجة "married-fem.". By contrast, if the writer is male, the same adjective will be متزوج "married-masc.”.

This study proceeds with the assumption that Brown and Yule’s (1983:59) principle of "local interpretation" does not always satisfactorily help translators arrive at the gender of the writer. On the contrary, translators find themselves forced to depend mainly
on their knowledge of the world in arriving at appropriate identifications of writers’ gender, especially when the first person singular pronoun I is used to refer to the writer(s) and in the presence of sex neutral proper names.

Brown and Yule (op. cit.) claim that the principle of local interpretation “...instructs the hearer (in our case the translator) not to construct a context any larger than he needs to arrive at an interpretation”. Thus, if a hearer hears someone say "shut the door" he will look towards the nearest door available for being shut' (Brown and Yule 1983:59).

This principle holds in some text types as shown below, in face-to-face communication and, may be, in one-to-one written communication. That is, in cases where interactants/interlocutors have a lot in common (mutual/common background knowledge). However, the following example from Sperber and Wilson (1986:170) demonstrates that the principle of local interpretation does not hold for all types of communication:

"In the Stalin era, two friends in the west were arguing. Paul had decided to emigrate to Russia, which he saw as a land of justice and freedom. He would go and write back to Henry to let him know the beautiful truth. Henry tried to persuade him not to go: there was oppression and misery in Russia, he claimed, goods were scarce, and Paul's letters would be censored anyhow. Since Paul would not be moved Henry persuaded him to accept at least the following convention: if Paul wrote back in black ink, Henry would know he was sincere. If he wrote in purple ink, Henry would understand that Paul was not free to report the truth. Six months after Paul's departure, Henry received the following letter, written in black ink: 'Dear Henry, this is the country of justice and freedom. It is a worker's paradise. In shops you can find everything you need, with the sole exception of purple ink..."
In the above example, the communication between Paul and Henry was successful because of their sharing the secret code (i.e. their shared background knowledge about the colour of the ink to be used and what it implies). If what Paul wrote was given to someone else who did not know the secret code, he would not be able to get at the intended contextual effects from the expression "with the sole exception of purple ink", not knowing the convention behind it. It is because both Paul (addresser) and Henry (addressee) share the convention that the communication succeeds.

3.0. The Study

To put to the test the hypothesis that translators rendering English gender specific texts into Arabic will, first, depend on:

(1) contextual clues available in the text on the sex of the writer, and
(2) clues outside the text, depending mainly on their knowledge of the world.

The following experiment was carried out on three groups of translators (see below).

3.1. The Subjects

Three groups of translators were randomly selected for this study: 10 4th year translation students, 10 lecturers from the Translation Dept. and 10 professionally sworn-in-translators. 5 of the lecturers hold an MA degree in translation studies and the other 5 hold Ph.D. degrees in the same field. All of them are graduates of British universities. They have been teaching several translation-related courses for a minimum of three years, but have not practised translation as a profession. 8 of the professional
translators have a BA degree in translation and 2 hold an MA degree in linguistics. They have been practicing translation on professional basis for quite a long period of time, which ranges from 5 to 13 years. They have come across several text genres of the text types used for the present study.

3.2. Translation Tests

The subjects were given a set of different authentic text genres (see appendix (1)) in English and were asked to translate them into good and sound Arabic. There was no time limit set for the task. The subjects were requested to hand the translated texts back to the researcher after the task completion. They were informed that the objective of the task was to compare different strategies translators follow in English-Arabic translations. It is worth noting that some texts (e.g. text (3) in Appendix (1) and text (3) of text group (6) in Appendix (2)) offered more contextual clues pertinent to the sex of the writer than others. The texts with more contextual clues were intended to help the researcher distinguish among the three groups in terms of the degree of their noticeability of the clues given.

Some of the texts carried gender specific (indicative) names, whereas others carried gender-neutral names. The contents of non-running texts are numbered in terms of the number of entries they contain and running texts are numbered in terms of the number of sentences each text hosts for ease of reference. A sentence, as used here, is taken to refer to a stretch of language that starts with a capital letter and ends with a full stop. It should be pointed out that minor changes were introduced into the CVs and the other texts to hide the identity of those who wrote/issued them. For instance, persons and institutions’ real names have been replaced with others.

It is in order to point out that a list of 20 English (derived from the Chambers Dictionary 1999) and 20 Arabic names (chosen by the
researcher) was distributed among the three groups of subjects used for this study (see Appendix 2). The lists contained gender specific names and gender neutral names. The objective was to find out how familiar the subjects were with male, female and gender neutral names. The subjects were asked to write/transfer the English names into Arabic, the Arabic names into English and to indicate the sex of each name. This experiment was meant to demonstrate that names should be considered in their cultural contexts. That is, they must be interpreted with reference to the environment in which they originated as what might be, in one culture, a male person’s name might be a female person’s name in another and vice versa.

4.0. Discussion and Results

The principle of local interpretation works nicely in the case of writers who, in terms of Grice’s (1975) maxims of quantity and manner, make their contributions as informative as is required and who avoid ambiguity. For example, any attempt at identifying the gender of the writer of text (1) (see Appendix (1)) will end up in failure, if the reader/translator does not go beyond the CV writer’s first name, which is sex neutral. Therefore, we would expect the reader to employ the principle of local interpretation and extend it a bit until he/she reaches the CV entry titled "wife". Only then will the reader/translator be in a position to positively and confidently say that “Nour” is a man’s name. Had the CV writer used the generic noun "spouse", instead of "wife" and the wife’s name was of the sex neutral category, then the translator’s attempt at identifying the writer’s gender will be extremely difficult and the writer would have been referred to as uncooperative. The same is true of the noun “partner”, which is, sometimes, linked to the gay community.

The inclusion, on the part of the text writer of the entry “wife” is viewed here as a sign of cooperation and a conscious attempt towards helping the reader identify the writer’s proper gender.
Probably the writer knows that his name is used, in certain cultures, for both males and females and therefore gave enough contextual clues towards the successful identification of his proper gender. Consequently, all the members of the three groups were successful in their attempt at identifying the gender of the writer's first name. Without the entry "wife", this identification would have been unimaginably difficult as all the entries on the CV apply to male and female writers and Brown and Yule's principle would not be of much help to the reader/translator.

Although there are calls for gender-fair-language (Nilsen 1984), the proper identification of the writer's gender plays an important role in obtaining jobs in the Gulf area, where in some Gulf states men are not recruited for the teaching of women. Thus, gender identification may act as either a selecting or excluding factor. The insertion of the "wife" entry is seen in the context of Sperber and Wilson's (1986) Relevance Theory as providing a "contextual implication", which will yield "contextual effects", and which, in turn, will lead to strengthening or eliminating an existing assumption (in our case the gender factor).

Sperber and Wilson (ibid:107-108) present "contextual implications" as follows:

"A set of assumptions [P] contextually implies an assumption Q in the context [C] if and only if
(i) the union of [p] and [c] non-trivially implies Q,
(ii) [p] does not non-trivially imply Q, and
(iii) [c] does not non-trivially imply Q".

They rightly argue that incoming information interact with a context of existing assumptions in one of three ways:

i) by combining with the context to yield new contextual implications.
ii) by strengthening existing assumptions.
iii) by contradicting and eliminating existing assumptions.
It is on the premise of the above mentioned "contextual effects" that Sperber and Wilson argue that the relevance of a proposition in a context is dependent on the number of the contextual effects it yields. They (ibid:122) define "relevance" in terms of "contextual effects" as follows:

"An assumption is relevant in a context if and only if it has some contextual effects in that context".

For example, a person with a distinctly gender indicative name may not need to provide a "sex" entry.

From the previous discussion, it may, therefore, be argued that the inclusion of the "wife" entry is important as it plays a crucial role in disambiguating the gender of the CV writer. The inclusion of this entry is triggered by the writer's estimation that some readers do not have the appropriate "context" (i.e. contextual assumption) for the intended interpretation of a given item. In the light of this, the "wife" entry presents readers with the right context in whose light the CV writer's first name should be interpreted. In other words, if, in the reader's culture, the name Nour is used for females, then upon encountering the "wife" entry this assumption will be abandoned and the reader's efforts, at gender identification, will be kept to a minimum.

In the same vein, the writer of text (2) is seen as cooperative with his reader(s). The "sex" entry on the CV eliminates any old assumption, on the part of the reader, regarding the gender of the name "Ihsan", which is used for females in some cultures, for males in others and for both in some others. Here the reader/translator does not need to extend the context beyond the "sex" entry to arrive at the CV writer's proper gender. The inclusion of this entry made it easy for all the subjects to arrive at the proper gender of the CV writer.
In text (3), the gender of the person is indicated through the use of the gender specific name Abdul Majeed and the frequent use of the third person singular masculine pronouns "he" (and his) and the employment of the adjective "gentleman" in the last paragraph. This has made the subjects' task at gender identification easier. Had this adjective been deleted, the person's first name been replaced with a gender neutral name and all pronouns been replaced by Dr. Joodi, sex identification would have become extremely difficult for readers and translators. It is also observed that the title 'Dr.', in several other translation situations, was of no help to the translators since it is sex neutral. Gender inclusive titles such as Dr., Professor, Lecturer, etc. are sex neutral and therefore will be of no help to readers/translators in their attempt at identifying the writer's sex.

In this regard, Lotfi (1990) lists a number of signalling clues in written texts that might help translators decide the gender of the writer. They are:

1) Expressions used exclusively by one sex, such as:
   a) skirt
   b) bra
   c) high heels
   d) lipstick
   e) purse

2) Biological qualities, such as
   a) pregnancy
   b) breast feeding
   c) monthly period

3) The use of common nouns:
   a) wife / husband
   b) son / daughter
   c) man / woman

4) Titles like
   a) Mr., Mrs., Ms., Miss
5) The existence of gender specific expressions such as:
   a) actress
   b) ambassadress
   c) stewardess

These clues cover linguistic and extra linguistic factors. However, such signals are not always informative of gender. For instance, a male actor carrying one of the sex neutral names mentioned above might write in his CV:

"I played the role of a pregnant woman in 'Women for Sale'".

The underlined word will not be of much help to the reader/translator in establishing the sex of the writer. On the contrary, it might mislead the reader/translator into believing that the writer is female. Therefore, translators and trainee translators, alike, should be cautioned against rushing and making quick and irrational decisions on the basis of one clue. They should be informed to make a learned guess after reading the text in question in its entirety.

Text (4) (see Appendix (1)) contains no clues as to the gender of the degree holder. This represents problems for translators from English into Arabic, as the verb phrase "has been awarded" has to inflect for the degree recipient’s gender to render a gender appropriate translation. For instance, the verb phrase "has been awarded", when rendered into Arabic and dependent on the gender of the degree recipient/receiver, has to read as "awarded-fem."(مُحْتَجَّة) or "awarded-masc."(مُحَجَّ) the degree of. The professional translators group, being in doubt about the proper gender of the degree receiver, resorted to the Arabic active infinitive (non-finite structure), which is sex neutral, to overcome the problem of agreement and rendered the above verb phrase as follows:

"\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldot
This should draw the attention of translation students to an important fact. It is obligatory to render every passive structure, as is the case in the text under discussion, into similar structures in Arabic, provided there is no change in meaning. It is worth noting that the professional translators group, unlike the other groups, contacted the researcher asking for more clues on the gender of some of the personal names used in the texts given to them. Their request was not met in order not to influence their performance. It can be argued that professional translators, compared with the others and being fully aware of the legal consequences and damage that their translations might result in, are better translators and detail seekers. It seems that their translation experience in the market has taught them not to rely on the text only for all translation pertinent information. That is, they go beyond the text and inquire about translation relevant issues from the translation requester.

The members of the first group (translation students) took the name "Taysser" for a female and rendered the verb phrase "has been awarded" as:

"نَشِهدُ بِأَنَّ تَسَسِرَ خَالِدُ مُحَمَّدٍ قُدُّ مُنَحَتَ دِرْجَةَ . . ."

8 of the translation lecturers inflected the verb phrase for a female and 2 used a non-finite "نَشِهدُ بِأَنَّهُ قُدُّ مُنَحُ تَسَسِرُ مُحَمَّدَ دِرْجَةَ" to overcome their uncertainty about the degree holder's gender. It so happened that these two were from Egypt, where the name "Taysser" is used for both males and females.

To overcome the gender indeterminacy of some personal names and as a sign of cooperation on the part of the writer of any would be sex ambiguous text, it might be a good practice to introduce the titles Mr., Miss, Ms. or Mrs. (and cross as appropriate), depending on the gender/marital status of the degree recipient/receiver (see text 5 in Appendix (1) for an example). This will, of course, induce less processing effort on the part of the translator into Arabic.
Furthermore, the attachment of a personal photo to the CV/certificate will make explicit the gender of the person. Such suggestions are in agreement with Sperber and Wilson's (1986a:16) statement that:

"A speaker (in our case a writer) who intends an utterance to be interpreted in a particular way must also expect the hearer (in our case the reader/translator) to be able to supply a context which allows that interpretation to be recovered. A mismatch between the context envisaged by the speaker and the one actually used by the hearer (knowledge of the world) may result in a misunderstanding" (brackets are mine).

In text group 6 no. 1, all of the subjects, with the exception of professional translators, did not notice the gender of the personal name in the signature slot. They did not make the link between the gender of this name and the phrase "I would also be very grateful" in sentence no. 3. This phrase, to be rendered into Arabic, has to be inflected for femininity and/or masculinity in light of the name’s gender as follows:

سأكون أيضا ممتنًا (للمؤنث)
سأكون أيضا ممتنًا (للمذكر)

Nearly all the subjects inflected it for a male person although the name Pascal, in Arabic societies, is used for females. It seems that every mention of the first speaker singular pronoun I is taken for a singular male writer. This points to negligence, on the part of some translators, in exhausting all given clues.

By contrast, 7 professional translators inflected this phrase for a female person and the rest (3) used a gender neutral structure similar to the one used in example 2 below. The name "Kerry" in
text 2 of group 6 (see Appendix (2)) was taken, by groups 1 and 2, for a male writer. Although the name "Kerry" is sex neutral (Crystal 1991:113), yet all subjects, with the exception of the third group who knew the legal consequences of their work and again requested more information as to the gender of the name, took it for a man. This may be taken as an indication of ignorance/unfamiliarity surrounding the gender of personal names. This is justified in light of increasing gender neutral nouns. Even native speakers of the source language, unless given enough clues, will get confused.

Therefore, the solution to this problem may lie in employing sex explicit titles as suggested above. The professional translators overcame the gender translation problem in text 2 through using gender neutral structures. They rendered sentence 4 as follows:

"أقدر لكم اهتمامكم بتصحيح الأمر على وجه السرعة الممكن.

Text (3) in text group (6) posed no gender problems for the three groups and was appropriately rendered into Arabic since the name "Andrew" is gender specific as well as very common. However, if this name was replaced with a female name, translators would not be expected to face any gender problems rendering this text into Arabic as it does not contain any adjectives qualifying the writer, which seem to play the crucial role in rendering gender appropriate translations. The members of the three groups reported that this text consumed less time, compared with the others because of the explicitness of the gender of the name (Andrew) used.

The results of the personal names gender identification task (see Appendix 2) showed some unanimous agreement among the subjects on certain names and discrepancies in others. They all indicated the gender of some names (English and Arabic) confidently; especially those that are very commonly used/heard of in their societies. The results also showed that the decisive factor in gender identification was the subjects' background knowledge (knowledge of the world). That is, if a name was used in a group of subjects' culture for females, then they marked it as female. By
contrast, other subjects marked the same name as male because in their culture it is used for males. Others marked it as neutral (female and male) because they had had experiences in their societies of persons (male and female) carrying the same name.

It is very common in Egypt, for example, to find names such as (Nour, Ihsan, Sanaa, Wafaa, Tayseer and many others) being used for both sexes. This makes it extremely difficult for translators, especially with the non-availability of enough contextual clues, to arrive at identifying the appropriate sex of such names when encountered in written documents.

Another serious issue that came as a result of the experiment was inconsistencies in the transcription of English names into Arabic and Arabic names into English. The members of the three groups came with as many as 4 different transcriptions for one name, viz. Mohamed (in English) and Parrot (in Arabic) (see Benachenhou (2001) for more examples and solutions to the problem). This, of course, will result in serious legal problems for the person whose name is spelt differently in several documents. Imagine a person’s name being spelt in a certain way in his/her credentials and then appears in a different transcription in another document. Officials anywhere will have all the right to believe that the documents do not belong to the same person.

Semantic translation of some personal names was another serious issue that came to my attention. Some of the members of group (1) could not resist the temptation of translating some of the personal names when they naïvely opted for the semantic translation of some names. For instance, John Parrot was rendered in Arabic as "جون البيغاء بطرح", Alan Fish as "آلن السمكة" and Peter Roe as "بيتر". The same strategy was applied to some Arabic names, which resulted in nonsense and funny words. One such example is: "محمد بركات" was rendered as "Mohamed Blessings". By
contrast, the names they could not assign a meaning to (e.g. Peter, John, Alan, etc.) were transliterated.

It may be argued that trainee translators were tempted to semantically render some personal names because these names carry meanings. It is these names that we have to warn our students against translating. Names should be phonologically rendered into other languages, unless indicated otherwise.

The results given in the tables in appendix (2) exhibit substantial differences among the three groups in their identification attempts. Again, professional translators were better performers than the other two groups. They were successful in spotting English neutral names (marked with an asterisk in the tables). The reason for their outstanding performance may be justified in the light of their vast work experience. They might have come across such names in documents submitted to them for translation.

The performance of the translation students' group was not much different from the translation lecturers. This may be attributed to two factors:

(1) Unfamiliarity, on the part of the two groups with English neutral personal names, and
(2) The seriousness with which they approached the task of gender identification.
(3) They have not been involved/engaged in authentic translation tasks for a real audience. There is a big difference between teaching translation and actually translating. It is true that practice makes perfect.

As far as the gender of Arabic personal names was concerned, again the professional translators group's performance was much better than that of the translation lecturers group (see tables in Appendix (2)). There are some Arabic neutral personal names (marked with an asterisk (*) in the table) that they marked as female only. However, their performance this time was better than that of the translation students group who, because of their lack of
experience and contact with others, marked some neutral names as either male or female (see tables in Appendix (2) for details).

- **Conclusion**

From the previous discussion, it may be concluded that some personal names, depending on the richness or poverty of the translator's background knowledge, do not convey clear and sufficient information as to easy and unambiguous identification of the sex of the intended referent. This places personal names in terms of gender explicitness on a cline, which ranges from the fully explicit to the least explicit. Thus, some personal names are more gender revealing than others.

This study provides evidence that professional translators, unlike translation students and translation lecturers, are better hunters for clues due to their vast and varied translation experiences.

- **Recommendations**

It is observed that English language teaching textbooks in use in the Arab world have started inserting Arabic names in their teaching materials. I believe this practice has more disadvantages than advantages for the following reasons:

(1) Students in this part of the world are already familiar with personal names from their culture.

(2) It is strange to use Arabic names in the context of teaching English as a foreign language as such names have no relevance whatsoever to the language in use and the people who speak English do not carry such names.

I think it is more befitting for designers of teaching materials for the Arab world to employ English names as this will help acquaint Arab
learners with names from this culture. We should also develop in learners a sensitivity to gender distinction. I heard from a colleague of an English person called "Lindsay" who always follows his name with the title "Mr.". This represents a conscious strategy on his part to delimit readers' interpretations of the gender factor. Knowing that his name is gender neutral makes him do this.

Students should be instructed not to translate names unless they are of the category that Manini (1996:163) labels "loaded names". According to Manini (op. cit.) the purpose of loaded names "is not merely to identify people but to characterize and connote them". This practice may be adopted in literary works. Newmark (1981:70) rightly argues that "In belles-letters, names are normally translated only if, as in some plays, the characters and milieu are naturalized".

Surveying some writing textbooks (e.g. Hilton and Hyder 1992 and Jolly 1984) it has been noticed that they present learners with formats for memos, business letters, job application forms, curriculum vitae, etc. without any entry for sex. Students should be taught to tag their names with a title (e.g. Mr., Mrs., Ms., Miss) when signing, if their names are of the sex neutral type. This is in line with Grice's (1975:45) maxims of quantity ("Make your contribution as informative as is required", and Manner ("Avoid ambiguity").

In the event of using generic inclusive/neutral titles such as Dr., Professor, Head of Department, Salesperson, Business Executive, the defendant, the deceased, the plaintiff, the above named person, etc., it is recommended that gender indicative items be used to save readers and translators an unjustified processing effort. Some such examples are the inclusion of a sex entry in CV and, maybe, the attachment of a personal photo. Translation students should be informed to read any to be translated English text in its entirety before deciding on the sex of the writer. In cases of doubt about the gender of the writer, the writer could be approached, if possible, for clarification. Translation students should be trained to be inquisitive. They
should not be content with the information on paper if ambiguity surrounds any text item. Of course, experienced translators might have a special form to be filled in by a translation requester. This form may cover issues such as, type of translation, date wanted, sex of text writer, gender of personal names used in the text, purpose of translation, etc. The information requested in this form should be carefully thought about and made to address any future queries relevant to the translation process.

It might be a good practice to expose translation trainees to as many personal names, in English and Arabic, as possible together with their gender pertinent details. Dictionaries of personal names might be a good source for such names. To overcome the problem of different transcriptions for a person's name it might be a good idea to ask translation requesters if they have had their names translated into the target language before. If yes, then the translator has to adhere to the same representation of the name, even if s/he thinks that the name is not correctly transcribed. If no, then s/he may try his/her best to render the name into the target language. As English is the international language these days, governments in non-English-speaking countries may make it obligatory for the ministry of health that names of newly born babies be given in their native language and in English in birth certificates. The transcription/orthography adopted should be adhered to every time the name is written. The transliteration of Arabic names into English should be done by specialists in the language. This prevents misrepresentations of Arabic names in English. In Egypt, for example, the following names:

ثناء – عثمان – نروت – ثرياء .. الخ

contain a voiceless dental fricative sound (θ), which is equivalent to (θ) in English. Yet, the Arabic sound is rendered in official documents in Egypt as voiceless alveolar fricative (s). This happens under the effect of the local Egyptian spoken dialect in which the (θ) is replaced with a (s) for ease of production.
It seems plausible to suggest that some renowned sworn-in-translators be invited to lecture rooms to talk to students and lecturers about their translation experiences and the sort of problems they face in the translation of certain text genres. This will help make students and lecturers aware of real problems encountered in the field and will help bridge the gap between the world of academia and the translation market.
References


APPENDIX (1)

Text one

CURRICULUM VITAE

1. Family Name: Naimi
2. First Name: Nour Mohammed
4. Nationality: Syrian
5. Home Address: Syria - Aleppo
   P.O.Box: 32
   Tel: 00963 -21-2661217
6. Work Address: Home Tel: 00962-6-5330407
   Mobile: 079-581-349
   Amman - Jordan
   P.O.Box: 18
   Code No.: 19392
   Philadelphia University.
7. Marital Status: Married
8. Wife: Sahar Hafez, Syrian Nationality
   B.A. in English Language
   Diploma in Education.
9. Children: 2 Males Aged: 18 & 6, and 1 Female, Aged: 22
10. Languages Known: Mother tongue: Arabic
   Excellent: English
   Fairly good: French
   Fairly good passive knowledge of Latin

11. Special Interests: Reading, Swimming, Chess.

12. References: available upon request.

**Text two**

**CURRICULUM VITAE**

1. **Personal Details:**

   Name: Ihsan A. Shammas
   Date of Birth: April 1945
   Place of Birth: Damascus, Syria
   Marital Status: Married
   Nationality: Syrian Arab
   Sex: Male
   Occupation: Lecturer in Linguistics
   and Translation
   Permanent Address: 18 Abi Zar al-Ghifari,
      Ein Kursh, Damascus,
      Syria.
      H. Tel.: + 963 (011) 444 2919
      Tele-fax: + 963 (011) 445 9050

2. **Qualifications:**

3. Experience:

1. Positions held:


d) **Lecturer** in English, Department of English, Damascus University: 1977 - present (except for years of study abroad, in England). Subjects taught: Translation, Grammar, Phonetics and Composition.

e) **Director**, English for Specific Purposes Centre, Damascus University: 1982-1985. This includes experience in: Curriculum Planning, Syllabus Design and Writing of Specialized English Language Teaching Materials. This period witnessed the establishment of the ESP Centre catering English

f) for c. 1000,000 learners (including Staff Members and Post graduates) at Damascus University.

g) **Counterpart** of English Language Experts (KELTs), ESP Centre, Damascus University: 1980 - 1985.


i) **Lecturer in Translation**, Diploma in Translation, Department of English, Damascus University: 1997 - present.

j) **Supervisor**, MA dissertations, Department of English, Damascus University: 1999 - present.

k) **Assistant Professor** of English, Jerash University. Jerash, The Hashimite Kingdom of Jordan: 1997 - present.


4. Courses Attended:

a) 3-week Summer Course, ESP Methodology, University at Aston, Birmingham, England: July-Aug. 1980.
e) I have run or participated in running yearly ESP Teacher Training Courses & seminars, Damascus University: 1982 - 1996.

5. Publications:

1) "Listening to Lectures, Humanities", ESP Centre, Damascus University: 1984.
2) "Listening to Lectures, Agriculture", ESP Centre, Damascus University: 1987.
4) Dozens of Articles for Flash of Damascus Monthly (see above).
7) Translation and Translatability, Aydi Printing House, Damascus, Syria: (forthcoming)
Text three

Republic of Yemen
Hornard University
FACULTY OF LANGUAGES

DATE: ..........................
Ref. : ..........................

TO WHOM IT MAY CONCERN

1. Dr. Abdul Majeed Hameed Joodi, Assistant Professor, Department of English, Faculty of Languages, Hornard University, Hornard has been known to me for nearly seven years or so.
2. Dr. Joodi joined the English Unit of the then Language Centre (now Faculty of Languages) in December 1993 and has been teaching both requirement and specialist courses ever since then.
3. He has also been coordinating and supervising the teaching of English as a university requirement in the Faculty of Education, Hornard University for a number of years. 4. Dr. Joodi's teaching interest span many different areas like EST, EAP, Linguistics, Applied Linguistics and translation. 5. His abilities as a scholar and teacher draw upon an abundant reserve of energy and vitality which have won him accolades in other fields of human interest.

6. Dr. Joodi has been taking a full and active part in the various curricular and extra-curricular activities of our department and is much respected and well liked by both his students and colleagues. 7. He has been a welcome presence in our Department and has always impressed me as a keen and ardent scholar and competent teacher.
8. Dr. Joodi is a conscientious gentleman and dependable and trustworthy colleague. 9. He combines strong character and determination with strongly polite manners and winning ways.
10. I wish him every kind of success in life.
A.K. Kharma
Professor and Head
Department of English.

Text Four

The University of

SALEFORN

This is to certify that

TAYSSER KHALID ALI

has been awarded the degree of

Master of Arts

in

Translation (English/Arabic/English)

Registrar

16th July 1996
Text Five

The University of Feesbs

DEGREE OF DOCTOR OF PHILOSOPHY

It is hereby certified that
Mr./Miss
JIHAD Ahmed ALI

was admitted to the degree of Doctor of Philosophy

in this University

on the twenty-first day of June 2001
Text group 6 (1)

6 Manor Way,
Warwick,
Warwickshire CV14 5BS

28th October, 1998

The Sales Manager,
Transatlantic Plastics Ltd.,
Ventnor,
Isle of Wight

Dear Sir,

1. Thank you for the new Autumn catalogue received the other day, I would now like to order the following items from it:

   1 A4-size Mini-grip plastic bags
   4 large size pieces of plastic sheeting

2. I enclose a cheque for the sum of £11.80 to cover the cost of the items and postage and packing.

3. I would also be very grateful if you would send me a new catalogue every year.

   Yours faithfully,

   Pascal Hopwood
Refuse Collection Dept.
North Street
Bishop's Stortford CN20 3TR

Dear Sir,

1. I'm afraid that I'm forced to write to you about the collection of dustbins in Larch Grove. 2. This morning, for the third time in three weeks, the council dustmen have left an appalling amount of rubbish - paper, ash, cans, bottles - on the pavement of Larch Grove. 3. Surely it is not impossible to collect rubbish without spreading half of it over the streets. 4. I would be most grateful if you would put this matter right immediately. 5. We want clean houses, gardens and streets in this town.

Yours faithfully

Kerry Fox
Text group 6 (3)

The Vale
Uprear Avenue
Troon
26/9/2001

Librarian
Central Library
Troon

Dear Sir,

1. Thank you for your card informing me - a second time - that I have two books outstanding which are overdue. 2. I sincerely apologise for not returning Smollet's 'Humphrey Clinker' or Hardy's 'Jude the Obscure' after your request for them. 3. I'm afraid I can offer no excuse except that I forgot all about it. 4. Unfortunately, I am not in Troon until next Tuesday, but I will return both books on Tuesday afternoon.

Yours faithfully

Andrew Glover
### Appendix (2)

#### English Personal Names

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name</th>
<th>Students Group 1</th>
<th>Translation Lecturers Group 2</th>
<th>Professional Translators Group 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1*</td>
<td>Green Water</td>
<td>M 10  F -  N -</td>
<td>M 8  F 2  N -</td>
<td>M 6  F 2  N 2</td>
</tr>
<tr>
<td>2</td>
<td>John Parrot</td>
<td>M 10  F -  N -</td>
<td>M 10  F -  N -</td>
<td>M 10  F -  N -</td>
</tr>
<tr>
<td>3</td>
<td>Freeman Alan</td>
<td>M 10  F -  N -</td>
<td>M 10  F -  N -</td>
<td>M 10  F -  N -</td>
</tr>
<tr>
<td>4</td>
<td>George Bush</td>
<td>M 10  F -  N -</td>
<td>M 10  F -  N -</td>
<td>M 10  F -  N -</td>
</tr>
<tr>
<td>5</td>
<td>Sue Carpenter</td>
<td>- 10  F -  N -</td>
<td>- 10  F -  N -</td>
<td>- 10  F -  N -</td>
</tr>
<tr>
<td>6</td>
<td>Helen Thomas</td>
<td>- 10  F -  N -</td>
<td>- 10  F -  N -</td>
<td>- 10  F -  N -</td>
</tr>
<tr>
<td>7</td>
<td>Elizabeth Fox</td>
<td>- 10  F -  N -</td>
<td>- 10  F -  N -</td>
<td>- 10  F -  N -</td>
</tr>
<tr>
<td>8*</td>
<td>Allwood Blaire</td>
<td>M 10  F -  N -</td>
<td>M 10  F -  N -</td>
<td>M 7  F 1  N 2</td>
</tr>
<tr>
<td>9</td>
<td>Wendy White</td>
<td>3  M 7  F -  N -</td>
<td>- 10  F 2  N -</td>
<td>M 10  F -  N -</td>
</tr>
<tr>
<td>10</td>
<td>David Crystal</td>
<td>M 10  F -  N -</td>
<td>M 10  F -  N -</td>
<td>M 10  F -  N -</td>
</tr>
<tr>
<td>11</td>
<td>Read Charles</td>
<td>6  M 4  F 2  N -</td>
<td>M 8  F 2  N -</td>
<td>M 10  F -  N -</td>
</tr>
<tr>
<td>12</td>
<td>Cook Fillmore</td>
<td>8  M 2  F 2  N -</td>
<td>M 10  F -  N -</td>
<td>M 10  F -  N -</td>
</tr>
<tr>
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The Significance of Anomaly in Post-Positivistic Accounts of Science

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Abstract

The clash between scientific theory and anomalous phenomena allows for the following alternatives:

1. Rejecting the theory on the ground that it has encountered a falsifying incident, and substituting a completely different approach to reality.

2. Adjusting some of the auxiliary hypotheses of the theory so that it succeeds in saving both the main thrusts of the theory and its perfect match with reality (an option which necessitates the explication of "legitimate", as oppose to "ad hoc" adjustments).

3. Reinterpreting the theory or the anomalous cases in a way which shows that the apparently anomalous cases are no longer anomalous, i.e. that the phenomenon is only apparently anomalous (an option which urges the formulation of an adequate distinction between "apparent" and "genuine" anomaly).

4. Ignoring the source of trouble by denying its relevance, either by shifting the burden of accounting for the anomaly to other fields, or by issuing certain skeptical judgments regarding its significance.

This paper deals with all these issues. It aims at analyzing the problem of anomaly in the contemporary philosophy of science.
أساسية الحالات الشذوذة في الخطاب ما بعد الوضعي

ملخص

ينتج التضارب بين النظرية العلمية والظواهر الشذوذة البديءية التالية:

1) نسب النظرية على اعتبار أنها واجهت حالات داحسة، والاستيعاب عنها بهيج آخر في تفسير الواقع.

2) تعديل بعض فروض النظرية المساعدة حيث يتسم لها في آن الخفاظ على مبادئا الرئيسة وتكريس تкалاتها النام مع الواقع.

3) إعاادة تأويل النظرية، أو الحالات الشذوذة، بطريقة تبين أن الأخيرة لم تعد شذوذة، بمعنى أن الظواهر إذا تبدو على غير حقيقتها كذلك.

4) إغفال مصدر الصعوبة عبر إنكار تعلقه، إما بتحميل مجالات مغايرة عبء تفسير الحالات الشذوذة، أو بإصدار أحكام ترتيب في أهميتها.

تستثنى شرعية تبني أي من هذه البديءات بالمؤلف الفلاسفي الذي يتخذ إزاء غايات النشاط المتعلق والوسائل المعتمد بما في تقيقها. هذا يعني أن عقلانية السلوك وفق أي من تلك البديءات وفق على افتراض تعاليم فلسفية بعيدها. من جهة أخرى، تعد شرعية افتراض تلك التعاليم دالة لبداية البديءات التي توصي بها. وقد ترقى بنجاحها في حل إشكالات بيم افتراض مركزيتها. فضلاً عن ذلك، وهذا مناطق أحد المراكز المركزية في هذه الدراسة. سوف يتسنى تحديد معالجات ونقاط الرئيسة التي تثير بين بعض الوضعيات ما بعد الوضعي، البورية والكونية، على نحو خاص، عبر البديءات التي تمثلها. سوف يستثنى أن بعض من مبادئها الأساسية إما تعاكس في نوع البديءات التي يفضلها أشياعها، والتي لا تخرج عن تلك التي سلف ذكرها، بحيث يحقق إدراك حركة الأممية التي تعودها إلى دور الحالات الشذوذة في السياسات العلمية فيما يعشق لتلك البديئ. لا مناص من بعض التبسيط، بيد أنه ثم زهيد نسبة إلى الفهم الذي يتم تحقيقه.
The clash between scientific theory and anomalous phenomena allows for the following alternatives;

(1) Rejecting the theory on the ground that it has encountered a falsifying incident, and substituting a completely different approach to reality.

(2) Adjusting some of the auxiliary hypotheses of the theory so that it succeeds in saving both the main thrusts of the theory and its perfect match with reality (an option which necessitates the explication of "legitimate", as oppose to "ad hoc" adjustments).

(3) Reinterpreting the theory or the anomalous cases in a way which shows that the apparently anomalous cases are no longer anomalous, i. e. that the phenomenon is only apparently anomalous (an option which urges the formulation of an adequate distinction between "apparent" and "genuine" anomaly).

(4) Ignoring the source of trouble by denying its relevance, either by shifting the burden of accounting for the anomaly to other fields, or by issuing certain skeptical judgments regarding its significance.

Similarly, one may resolve the clash between definition, which claims to be both inclusive and exclusive, and apparent counter-examples, either by rejecting the definition; modifying it in a way which makes them conform to the criteria declared by the definition; reinterpreting the definition, or the apparent counter-examples, so that they no longer counter it; or denying the relevance of such examples.

The legitimacy of adopting any of these options depends on the philosophical position one takes towards the goals, and
the methods one considers conductive to achieving the goals of the related activity. In other words, the rationality, or the lack of it, of behaving in accordance with any of those alternatives hinges upon the assumption of certain philosophical doctrines. Likewise, the legitimacy of assuming such doctrines is a function of the intuitiveness (or commonsensibility) of the option(s) they prescribe. It may also depend on their success in solving some problems whose centrality is being presupposed. Moreover, and this constitutes one of the basic claims of this paper, we may adequately characterize the main differences between some of the major Post-Positivistic accounts of science, the Popperian and Kuhnian accounts in particular, in terms of the options they dictate. It will be shown that some of the central principles of such philosophical trends are depicted in the kind of previously sketched alternatives preferred by their adherents, so that one can gain a clear understanding of those principles through grasping the degree of significance they confer upon the role anomaly plays in scientific discourse.

Since we are mainly concerned with theoretical discourses that are either scientific or philosophical, we may consider those alternatives as possible answers to the question which asks about the most rational approach to deal with the clash between a scientific hypothesis or a philosophical doctrine in one hand, and phenomenal counter cases or certain counter intuitive judgments on the other.
Naïve versus Sophisticated Falsificationism

Examples will make that general scheme more obvious and less abstract. Suppose that our hypothesis (H) states that ‘(x)(Px → Qx)’ (i.e., “All P’s are Q’s”; any thing that has the property P, has the property Q). Suppose also that we encounter an object, call it ‘a’, which has the property ‘P’ but lacks the property ‘Q’ (i.e., something that could be described by the proposition: (A): ‘(Pa . _ Qa)’). It is clear that (A) logically falsifies (H) in the sense that it suffices to prove deductively that the latter is incompatible with reality. Since hypotheses need not to be introduced within sophisticated scientific discourse, one might think of simple beliefs as concrete examples of such general propositions. If I claim that “all my suits are black”, the fact that I own a brown suit, if it is a fact, proves the falsity of that belief. But our beliefs are often too sophisticated to force such a unique option. In fact, even that simple belief may raise certain difficulties. Apart from the possibility of semantic dispute over the meaning of the extra-logical terms (i.e., the definitions of the concepts: “color”, “shades of color”, and perhaps the notion of “property”), one may doubt whether the fact that I have no suits clashes with, and hence suffices to falsify, the claim that all my suits have a certain color, or for that matter, any other quality. There is a real philosophical dispute over the interpretation of general, sometimes called “universal”, propositions. Thus, whereas the Aristotelians hold that such a proposition could be falsified either by an object which satisfies its antecedent (the predicate that occurs before the truth-functional connective “→”) without satisfying its consequent (the predicate that occurs after that connective), or by an object which does not satisfy its antecedent, regardless of whether it satisfies its consequent; the contemporary logicians assert that only the former would constitute a counter falsifying instance to that proposition.
This means, among other things, that the sufficiency of my suit-poverty to falsify my judgment about the color of “my” suits, and hence the rationality of the decision I take regarding the apparent clash between my judgment and my claimed poverty, depends on the system of logic one adopts\(^{(1)}\).

**Naïve Falsificationism**, once held by K. Popper, is the view that prescribes the first option in our list. The main problem in the philosophy of science, according to this Post-Positivistic approach, is that of demarcation, i.e. finding a criterion which distinguishes science from pseudo science. Falsifiability, being the sole criterion of scientificity, implies that the notion of anomaly plays in that respect an essential role. Naïve Falsificationism “makes the search for, and resolution of, anomalies the *raison d’etre* of the scientific enterprise, and the absence of anomalies the hallmark of scientific virtue.” [Laudan, p.26]. Intellectual honesty consists in specifying the conditions under which one is willing to give up his position, and empirical counter evidence (anomaly) is the final arbiter that may judge the adequacy of any scientific theory [Lakatos, pp.92,104]. Struck by the asymmetry between the failure of inductive reasoning to enhance scientific theory, regardless of the multiplicity or versatility of supporting pieces of evidence we happen to gather, and the success of deductive reasoning in establishing the falsity of such theory, once a single counter fact is discovered, Popper asserts that the first option (in our list) provides the only alternative open for scientists. In his view, “the occurrence of even one anomaly for a theory should force the rational scientist to abandon it.” [Laudan, p.29].

Although simple cases are often deceiving, due to the over simplification involved in the appeal to their apparent
intuitiveness, the claimed asymmetry in such cases is straightforward. The argument:

\[(Pa \cdot Qa)\]  
\[(Pb \cdot Qb)\]  
\[\ldots\]  
\[(x)(Px \rightarrow Qx)\]

is deductively invalid, regardless of the multiplicity and verisimilitude of the substantial instances it assumes, provided that their number, as it is usually the case in scientific discourses, is finite. The question whether it is an inductively strong argument raises Hume’s traditional problem of induction. Popper argues for the Empiricist view which doesn’t trust the implicit premise, pertaining to the uniformity of nature, involved in that argument, although he mainly relies on Hume’s skeptical attitudes towards such unwarranted assumptions [Popper, p.7].

In contrast to that deductively invalid inference, the following simple logical argument shows that a single counter instance proves with complete certainty the falsity of the general proposition that constitutes the very conclusion of that inference:

\[(Pa \cdot \_ Qa)\]

\[\_ (x)(Px \rightarrow Qx)\]

According to both the Aristotelian and contemporary logic, the truth of that single premise guarantees the truth of its conclusion, no matter how wide the scope of the universal proposition happens to be. To make the validity of this
argument even more obvious, we may rephrase it using the following equivalent formulation:

\[(Pa \cdot \_ \_ Qa) \rightarrow (\exists x) (Px \cdot \_ \_ Qx)\]

\[\neg (Pa \cdot \_ \_ Qa)\]

\[\neg (\exists x) (Px \cdot \_ \_ Qx)\]

\[\neg (\exists x) (Px \cdot \_ \_ Qx) \rightarrow \_ \_ (x)(Px \rightarrow Qx)\]

\[\_ \_ (x)(Px \rightarrow Qx) \uparrow \]

However, there are three reasons for doubting the rationality of behaving in accordance with the first option prescribed by naïve Falsificationism. Duhem expresses the first one by maintaining that:

"... the physicist can never subject an isolated hypothesis to experimental test, but only a whole group of hypotheses; when the experiment is in disagreement with his predictions, what he learns is that at least one of the hypotheses constituting this group is unacceptable and ought to be modifies; but the experiment does not designate which one should change" [Duhem, p.99].

An entire network of theories is thus required for deriving any experimental prediction whose clash with reality is supposed to constitute the anomalous case. Duhem cites several historical examples to defend his contention, and he appeals to his conception of scientific theories as axiomatic systems; but to make his point logically sound, we need only to establish the deductive validity of a certain argument. Consider first the following simple symbolic representation of the experimental procedure related to testing scientific theories according to naïve Falsificationism:

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(x)(Px → Qx) → (Pa → Qa)
(Pa . _ Qa)

_ (x)(Px → Qx)

The first premise states that the theory ‘(x)(Px → Qx)’ predicts that if the object ‘a’ possesses the property P, it will also possess the property Q. The second premise represents an empirical finding that contradicts this prediction (an apparently anomalous case which indicates a clash between “theory” and “reality”). The Naive Falsificationist would conclude that this theoretical failure obliges the abandonment of that theory. Duhem, among others, does not reject the validity of this argument, but he raises some doubts about its soundness (i.e. he concedes that the truth of its premises guarantees the truth of its conclusion, but he denies the truth of some of its premises). In particular, he holds that scientific theories face reality in the form of systems, groups of related, but different hypotheses and that only such systems are capable of implying predictions. If any of such predictions turn out to be erroneous, we may well fail to locate the source of trouble. In fact, the decision to condemn any particular element of the relevant system is as arbitrary as the decision to blame any other element. This amounts to contending the validity and soundness of the following argument, which depicts the Duhemian account of the kind of clash that could result from empirical testing of scientific theories:

(H₁. H₂. ... . Hₙ) → (Pa → Qa)
(Pa . _ Qa)

_ (H₁. H₂. ... . Hₙ)³.

The articulation of the second objection, known in the literature as “the problem of psychologism”, requires a few
remarks about the notion of disconfirmation. The relation between falsification and disconfirmation is simple and straightforward; to falsify a theory is to provide conclusive evidence against it, and to disconfirm a theory is to raise the probability of its falsehood. This implies that whereas all falsifying instances are disconfirmatory instances, not all disconfirmatory instances are falsifying ones\(^4\). It also implies that any epistemic problems invoked against the notion of disconfirmation ought to raise doubts about the logically stronger concept of falsification.

Disconfirmation, like confirmation, is a relation between propositions. Facts (or "data") may be compatible or incompatible with scientific theories, but they neither confirm nor disconfirm theories, much less falsify or prove them. Rather it is our descriptions of such "facts" which enter in such relations. In the case of clash between our theory and our descriptions of observation, nothing prevents the logical possibility that what went wrong had to do with the accuracy of the latter. The ontological fact that this planet does not move in an elliptical orbit is epistemically neutral relative to the theory that all planets revolve around elliptical orbits; It constitutes neither a disconfirmatory nor a falsifying instance. It is our description of such a state of affairs, presumably based on our observations, which could bear such relations to that theory. But descriptions need not be accurate, and observations, in which they are based, may well be laden with the very theory they purport to establish. In the case of clash, therefore, we may decide to save the theory instead of saving the phenomena:

"To abandon a theory because it is incompatible with the data assumes that our knowledge of the data is infallible and veridical. Once we realize that the data themselves are only
probable, the occurrence of an anomaly does not necessarily require the abandonment of a theory (we might rationally choose, for instance, “to abandon” the data)” [Laudan, p.27].

We may consider Popper’s less extreme Falsificationism, sometimes called “Sophisticated Falsificationism”, as a recognition of that objection. But, as H. Brown rightly suggests, Popper pays a heavy price by adopting that kind of Falsificationism. In fact he comes close to adopting a Conventionalistic account of science which repudiates his basic tenets, especially his objections against Verificationism, his solution to the problem of induction, and his claim concerning the asymmetry between inductive confirmation and deductive falsification [Brown, p.72-73].

“Sophisticated Falsificationists” hold that “the basic propositions”, Popper’s name for our descriptions of simple sense data, which are supposed to figure essentially in the process of falsification, are not infallible. Scientists come to agree upon them in a conventional manner. In fact, Popper thinks that his view of science is better than Poincare’s because he only allows for the conventional acceptance of such “basic propositions”, while Poincare permits the conventional acceptance of full-fledged scientific theories. Yet, it is clear that the significance of any falsification depends on the epistemic status of “the basic propositions”. For the Popperian approach is established on the existence of a logical relation which allows the derivation of the negation of a general proposition from a singular proposition. This assumes the possibility of ultimate certainty regarding the truth of basic propositions, a notion which flatly contradicts Popper’s long strive to repudiate Dogmatism.

Thus, Popper insists on saying that the test of any theory is bound to stop at some basic propositions scientists decide to
accept. But logic alone does force us to stop at one basic proposition rather than another, although the fate of our theories will certainly depend on such an arbitrary decision. So, either the basic propositions are infallible, being mere conventions, and so the empirical basis of science is insecure, being unfalsifiable and hence unscientific; or they are conjectures susceptible like other theoretical conjectures to refutation, and the decision to reject them is not less rational than the decision to reject the theory with which they are incompatible, in which case the whole asymmetry between Falsificationism and Verificationism collapses, and Popper will lose his original contribution to the philosophy of science [Brown, p.73].

The third objection against the first option is historical (i.e. Descriptivist). Almost every theory in the history of science had encountered anomalies. If we were to take anomaly seriously, “we should find ourselves abandoning our entire theoretical repertoire in wholesale fashion and thereby totally unable to say anything about nature” [Laudan, pp.27-28]. But this does not mean that we should always ignore anomalies (i.e. adopt the fourth option). Anomaly may not constitute a decisive objection to theory, but it may well constitute an important factor in deciding whether we should remain faithful to it. In fact, as we shall see later, only those philosophers who approach the philosophy of science using the history of science as a model and a tool of analysis would raise such an objection, and they always consider the rationality of any scientific behavior relative to the stage of theory construction in which it occurs. What may be a rational decision when taken in the context of “extra-ordinary science”, to use one of Kuhn’s distinctions, may well be a foolish decision when taken in the context of “normal science”. The basic methodological rule, which governs scientific choices according to both
versions of Falsificationism, is the rule which prescribes that theories should always be subjected to experimental or observational tests. Consequently, it is always irrational for scientists to disregard, suppress, or reject the scientificity of anomaly. For the historically oriented philosophers, that rule normally fails to guide rational choices, and the rationality of rejecting theories, as a result of discovering anomaly, depends on factors which include the kind of activity the agent in question happens to practice.

*Ad hoc adjustments*\(^{(5)}\)

The second option, adjusting some of the auxiliary hypotheses of the theory so that it succeeds in saving the theory and its perfect match with reality, raises the problem of *ad hocness*. Intuitively, it is irrational for scientific agents, either qua scientists or, as some would argue, qua practical decision-makers, to ad hocly adjust their theories. (Lawyers, assuming certain arguable goals of their activity, may adopt all sorts of ad hoc adjustments of the stories their clients tell them, in order to save their necks). This indicates that there is a goal of science whose achievement is justifiably thought to be hindered by such acts. Alternatively, in the context of constructing an account of scientific rationality, it indicates that there is a goal which could be reasonably postulated for that activity and which yields a methodological rule or a normative judgment that is violated by such adjustments. In either case we would be able to articulate some of the central doctrines, maintained by the adherents of some Post-Positivistic approaches, by clarifying their view of ad hocness.

Kuhn takes that ad hoc adjusting of theory is a reasonable course of action:
“All theories can be modified by a variety of ad hoc adjustments without ceasing to be, in their main lines, the same theories. It is important, furthermore, that this should be so, for it is often by challenging observation or adjusting theories that scientific knowledge grows” [Kuhn (1), p.13].

Kuhn’s conception of science, during its normal stages, commits him to the rationality of ad hocness. According to that conception, normal science, the puzzle-solving activity, is an effective means for attaining progress in science. Practicing that activity amounts to solving those problems whose solvability is guaranteed by existing paradigms. Consequently, if an existing paradigm appears to be incapable of solving a certain problem, the option that is available to its adherents is either to ignore the anomaly which raises that problem (the fourth option), or to seek an ad hoc adjustment of that paradigm (the option under discussion). To seek an alternative account in order to solve it or to reject the theory without substituting another (the first option), is to refuse to practice normal science or to reject science itself. [Kuhn (1), p.13; Kuhn (2), p.114].

However, Kuhn does not tell us what ad hocness amounts to. All he requires, concerning the nature of ad hoc adjustments, is the preservation of the “basic” principles of the adjusted theory; adjustments, in the context of normal science, should affect only the so-called “auxiliary hypotheses”. Laudan, who shares with Kuhn the view that science is essentially a puzzle-solving discipline, attempts to characterize that notion in a way which is supposed to show that nothing is objectionable about ad hocness:

“A theory is ad hoc if it is believed to figure essentially in the solution of all and only those empirical problems which were solved by, or refuting instances for, an earlier theory...
Assuming that adhocness is understood in this way, we are entitled to ask: what is objectionable about it? If some theory $T_2$ has solved more empirical problems than its predecessor, even just one more, then $T_2$ is clearly preferable to $T_1$, and... represents cognitive progress with respect to $T_1$... Ad hoc modifications, by their very definition, are empirically progressive” [Laudan, p.115].

But even assuming that ad hocness should be understood in that way, although Laudan does not provide any reason for claiming that it should be so understood, he is not entitled to conclude that ad hocness is desirable. The fact that an adjustment “is believed to figure essentially in the solution of all and only those empirical problems which were solved by, or refuting instances for, an earlier theory” does not guarantee that it did solve them, and hence we would have no ground for claiming that the adjustment “represents cognitive progress” with respect to the adjusted theory, nor for claiming the desirability of ad hocness.

The trouble with any judgement which rationalizes ad hoc adjustments, I take it, lies in the fact that it allows for the dogmatic attempts to save theories despite their clash with counter instances. If my theory stated that ‘$(x)(Px \rightarrow Qx)$’, and as a result of factual finding we came across the apparently anomalous case ‘$(Pa \land \lnot Qa)$’, all I need to save my little theory is to find a property of ‘a’, call it ‘R’, that is not shared by the substantial instances that originally supported that theory, and adjust the later by simply exempting the objects that have that property from the domain of the universal quantifier. In other words, I could hold the following ad hoc adjustment: ‘$(x)((Px \land \lnot Rx) \rightarrow Qx)$’.

Certainly this adjustment “has solved more empirical problems than its predecessor”, but the fact that it solved only
one extra problem, which Laudan fails to stress, is essential for the ad hocness of the adjustment and consequently for the rationality of adopting it. Laudan, like Kuhn, is right in maintaining that those well-established theories, when they confront anomaly, should be adjusted rather than rejected; but nothing in Laudan’s characterization prevents us from adjusting theories regardless of their initial evidence. Ad hocness of any adjustment, in my account, should be a function of the strength of such initial evidence, and the strength of the kind of evidence we possess for the exemption made to account for the anomaly that prompted the adjustment. The stronger these two types of evidence are, the lesser the degree of adhocness of the relevant adjustment is, and the more rational our adopting it would be. In our example, no matter how we would explicate the notion of rationally justified beliefs, if I have enough confirmatory instances to rationally believe in the truth of the original hypothesis, and I found a sufficiently strong independent evidence for believing ‘(x)(Px \rightarrow _Qx)’, so that no heavy reliance on the anomalous case is committed, my adjustment would not be ad hoc; and the weaker those two types of inductive support are, the more ad hoc that adjustment would be. Ad hocness so understood is objectionable for the same reason that makes unwarranted beliefs objectionable. By adopting this account of ad hocness we could capture the intuitive lack of rationality involved in appealing to ad hoc adjustments without denying the judgement rightly stressed by both Laudan and Kuhn, which states that well-established theories, when confronted by anomaly, should be adjusted rather than rejected.
Genuine versus artificial anomaly

As indicated earlier, the third option, i.e., reinterpreting the theory or the anomalous cases in a way that shows that the apparently anomalous cases are no longer anomalous, urges the formulation of an adequate distinction between apparent and genuine anomaly. In Kuhn’s account, according to my interpretation, the rationality of adopting the kind of alternatives cited in our list depends both on the type of anomaly encountered (whether it is, or simply taken to be, genuine or artificial), and on the kind of activity the theorist in question happens to be practicing (whether he is a ‘pre’, ‘normal’, ‘extraordinary’, or ‘revolutionary’ researcher). For example, both the normal and the extraordinary practitioners of science behave irrationally when they choose to reject their theories as a result of discovering anomaly; but the pre-paradigm scientist may well behave in such a Popperian manner.

The postulation of solving only those problems whose solvability is guaranteed by existing paradigm, the assertion that science is essentially a puzzle-solving activity, seems to commit Kuhn to the scientific desirability of adopting the fourth option (ignoring anomaly). If science aims at solving this particular kind of problems, and if anomaly by its very definition does not figure in the solutions of such problems, then it is rational for scientists to disregard or suppress anomaly. But the assertion that such a decision is rational is ambiguous in two respects, one related to the type of activity being practiced and the other pertains to the type of anomaly encountered. In particular, I will argue that Kuhn is committed to the claim the scientist behaves reasonably when he adopts the fourth option only if he is a normal scientist and the anomaly he faces is thought by his scientific community to be
genuine. But let us first briefly clarify the different stages of science in Kuhn's account.

Pre-Science (PS) is the sort of research carried out without paradigms. What characterizes this activity is the absence of a standard set of methods or phenomena that every practitioner is forced to employ and explain. Due to that absence, all facts that could possibly pertain to the development of a given science are likely to seem equally relevant [Kuhn(2), p.113]. Such an activity does not allow its practitioners to ignore anomaly, for only paradigms license the rationality of the fourth option. This follows directly from the postulation of the aim of proposing theories that account for collected data as the prime objective of PS [Kuhn(2), p.15]. The sort of methodological rules that govern scientific choices in (PS) are exactly those prescribed by both the inductive Verificationists and deductive Falsificationists. No wonder that Kuhn believes that pre-scientists usually wind up producing a morass, and that their science is immature. [Kuhn(2), P.11,16]. Yet, there is in his account an important function PS succeeds in achieving; it paves the road, by its very failure, to normal science.

Normal science (NS) is the sort of research that is firmly based on "exemplars" (i.e., "concrete solutions accepted by the scientific community as, in a quite usual sense, paradigmatic" [Kuhn(3), p.463]). Exemplars are the source of the methods, problem-field, and standards of solutions accepted by any mature scientific community at any given time. But they provide only a promise of success, and the function of the practitioners of normal science is to actualize that promise by solving those problems whose solvability is guaranteed by existing paradigms. In fact, NS seems to progress so rapidly because its practitioners concentrate on
problems "that only their own lack of ingenuity should keep them from solving" [Kuhn(2), p.103,37]. By postulating puzzle-solving as the prime objective of NS, Kuhn commits himself to the rationality, on part of the practitioners of this activity, of ad hocly adjusting their theories, reinterpreting the paradigm or the anomalous cases in a way which shows that the apparently anomalous cases are no longer anomalous, and denying the relevance of those cases (options 2-4 in our list). In the context of PS, Kuhn's arguments against the first option, and for the claim that the options (2-4) exhaust the activity practiced in that type of science, can be summarized as follows:

(a) There is no such thing as research without counter instances; consequently, to allow that option is to make science an endless process of proposing and simultaneous disposing of theories.

(b) Even the most stubborn discrepancies between theoretical and experimental results respond at last to normal science.

(c) Ignoring anomaly, adjusting theory ad hocly, and reinterpreting either one of them, are courses of action that are conductive, at least indirectly, to the ultimate goal of science: generating revolutionary paradigms [Kuhn(2), pp.34,81].

In NS, failure to come near the anticipated result is usually failure as a scientist. What is tested is the theorist's ingenuity rather than the authenticity of his theory. Testing theory occurs only after persistent failure to resolve a noteworthy puzzle has given rise to crisis, which demands major shifts in the techniques of normal science, and which ends typically with a scientific revolution [Kuhn(2), pp. 35-36]. However,
failure to accommodate anomaly does not by itself rationalize the first option. The decision to reject one paradigm is always simultaneously the decision to accept another. Science does not operate in cognitive vacuum. But unlike normal scientists, who never evoke disagreement over fundamentals, crisis scientists are prepared to challenge the basic assumptions of their paradigms, although there is no agreement on which basic assumptions of existing paradigms are to adjusted or rejected. Different alterations are proposed, and different groups are consequently formulated. Working from their different perspectives, scientists will try to isolate the crisis evoking anomalies, pushing the rules of NS harder than ever. Concurrently, they will generate theories which, if successful, will accommodate such anomalies. Kuhn distinguishes between Extraordinary Science (ES), the activity undertaken during the stage of crisis, and Revolutionary Science (RS), whose essential function is to resolve the crisis by generating a revolutionary paradigm. The former aims at the latter, but it also aims at adjusting the techniques of NS. Brah’s theory, for example, is a product of ES, while Copernicus’ theory provides an illustration of revolutionary episodes (i.e., products of RS) [Kuhn(1), pp.35-36; Kuhn(2), pp.24,68,77,79,114].

Scientific activity is thus a process that commences with pre-science and winds up with revolutions. Failure of pre-science necessitates the adoption of ‘normal’ methodology, which does not emphasize the essentiality of anomaly. This seemingly irrational element ends up generating a crisis resolved initially through “extraordinary’ means (by adjusting certain basic principles of existing paradigms) and resolved eventually through a new scientific revolution. This is essentially the story of science as Kuhn tells it.
Ignoring anomaly

In Kuhn’s account, the question about the rationality of adopting the fourth option, the intuitively least rational alternative in our list, remains ambiguous. Distinguishing between different stages of science, in the previous manner, is an essential step towards resolving that ambiguity, but it is only one step. A clear understanding of that account requires also a distinction between two types of anomaly. In particular, it will be shown that whether it is rational to ignore anomaly, on that account, depends on the kind of anomaly being confronted as much as it depends on the type of activity being practiced. I will argue that Kuhn is committed to the claim that the scientist behaves reasonably when he disregards the anomaly F only if he is a normal scientist and F is thought by his scientific community to be genuine. Furthermore, Kuhn’s central claim that NS is a puzzle-solving activity will be reduced to the claim that the prime objective of this kind of science is to show that the anomalies, which confront existing paradigm, are only artificial.

Let us start by defining the remaining two key notions in this interpretation of Kuhn’s account. The fact F is artificially anomalous to the theory T if there is a problem (T is supposed to solve) and there is a solution S such that S is a component of T that specifies a regularity with which F is incompatible; and there is another solution governed by the essential principles of T which succeeds in accommodating F\(^6\). The fact F is genuinely anomalous to the theory T if T is incapable of explaining F no matter which auxiliary hypotheses of T are being adjusted, ad hocly or otherwise (i.e., if the essential principles of any theory which accommodates F are inconsistent with those of T).
Both concepts, thus defined, are ontological in the sense that they are independent of our beliefs. Scientists may justifiably come to believe that a certain fact is genuinely anomalous to their theory, and consequently decide to reject the latter, even though the former is only artificial. Heraclides, in the fourth century BC, believed in the axial rotation of the earth and in the idea that Venus and Mercury moved about the sun. Aristarchus, the Copernicus of the third century BC, held that the sun was the center of an immensely expanded sphere of stars and that the earth moved about the sun. Certain facts, suggested by the senses, about the structure of the universe, seemed to be genuinely anomalous to both theories, and for this good reason, the later were ridiculed or simply ignored [Kuhn (4), p.42]. Similarly, a genuine anomaly could be justifiably thought to be only artificial. The phases of Venus, first discovered by Galileo, were taken by some Copernicans as being anomalous to the geocentric solution of the problem of the planets (which arises from their having an apparent retrograde motion). The Ptolemaic solution predicted that Venus will always appear as a crescent more or less between the sun and the earth. But the astronomers who remained faithful to the Ptolemaic solution of that problem could have reasonably challenged the claimed clash between their theory and the "observed" phases. For one thing, the factuality of the "anomalous phenomenon" was not established; Galileo's observations depended on the reliability of his telescopes, which depended in their turn on "virtually non-existing optical theory" [Lakatos, p.107]. But even those who had no quarrel about Galileo's observations could have pointed out, quite correctly, that his discovery does not refute the Ptolemaic theory. Brah's geo-helio-centric solution is both compatible with those observations and governed by the same Aristotelian basic assumptions assumed by Ptolemy's paradigm. In other words, they could have regarded that
solution as a legitimate adjustment of this paradigm. Being a non-ad-hoc adjustment, the anomaly it accommodates is justifiably believed to be artificial; but since all the different versions of the geo-centric system are ontologically false, or so we suppose nowadays, that anomaly was in fact a genuine one, or so we believe.

The distinction between those two types of anomaly will enable us to articulate the difference between the Positivists and Kuhn regarding the rationality of adopting the fourth option. When a scientist encounters anomaly, the rationality of his rejecting his theory depends, in the Positivistic account, on whether he is justified in believing that the anomaly is genuine, and the rationality of adjusting his theory depends on the extent to which the adjustment is ad hoc. The option of ignoring the anomaly is always irrational.

As for Kuhn, we note that although he seems to refer to a distinction of the sort we just characterized:

"By ensuring that the paradigm will not be too easily surrendered, resistance guarantees that scientists will not be lightly distracted and that anomaly that leads to paradigm change will penetrate existing knowledge to the core" [Kuhn (2), p.65];

he comes close to denying the existence of any absolute criterion capable of dictating the most rational course of action:

"What is vague, however, about my position is the actual criteria... to be applied when decided whether a particular failure in puzzle solving is or is not to be attributed to fundamental theory and thus to become an occasion for deep concern" [Kuhn (5), p.248]
This amounts to saying, according to the proposed interpretation, that there is no way to know that the anomaly is genuine "...enough to become an occasion for deep concern", (i.e., to evoke crisis), or simply artificial, so it could be treated using the "normal" techniques of PS (i.e., by adopting one of the last three options in our list). Kuhn provides a verity of reasons for his claim:

(a) Failure to accommodate anomaly may well be due to the lack of ingenuity on the part of the theorist to come up with an appropriate adjustment of his theory; he might be "...a poor carpenter who blames his tools" [Kuhn (2), p.80].

(b) All experiments can be challenged either to their accuracy or their relevance; hence, the judgment that a fact is genuinely anomalous may be laden with false assumptions [Kuhn (1), p.13].

(c) History of science does not provide a general answer to the question "what is it that makes an anomaly seem worth concerted scrutiny and to be a source of deep concern?" (i.e., the notion of genuine anomaly cannot be descriptively characterized) [Kuhn (2), p.82].

(d) The choice between rejecting theory, in the case of facing anomaly, and ignoring anomaly is neutral in the following sense. If everyone abandoned the old paradigm when it first ran into difficulties, the aim of NS (solving puzzles) would not be achieved, and if everyone sticks to his theory, the aim of RS (generating scientific revolutions) will be hindered [Kuhn (5), p.248].
But Kuhn, as we indicated earlier, does not conclude that the question whether it is rational for scientists to adopt the fourth option cannot be answered or can be answered either way. The rationality of ignoring anomaly depends not only on the kind of theoretical assumptions, basic or auxiliary, it affects, but also on the kind of activity being practiced. In particular, the practitioners of NS behave rationally when they adopt the fourth option. Here is some textual support for this interpretation:

(a) “Normal science often suppresses fundamental novelties because they are subversive of its basic elements” [Kuhn (2), p.5].

(b) “Normal science does not aim at novelties of fact or theory and, when successful, finds none” [Kuhn (2), p.52].

(c) “Assimilating a new set of facts demands a more than additive adjustment, and until that adjustment is completed,..., the new fact is not quite scientific at all” [Kuhn (2), p.53].

(d) NS “... seems an attempt to force nature in the performed and relatively inflexible box that the paradigm supplies... indeed those [phenomena] that will not fit the box are not seen at all” [Kuhn (2), p.24].

Descriptivism, Prescriptivism, and Skepticism

Essentiality of the factor of anomaly, like the essentiality of any other factors that figure in scientific choices, determines the kind of philosophical account we are dealing with. Essentiality of such factors depends on whether we could assess the rationality of certain related scientific courses of action without appealing to them. For example, in the context
of theory-choice, the factor of simplicity is essential if the question about the rationality of accepting one theory and rejecting its competitors cannot be answered without determining whether it is simpler than them. Objectivity of the factor, on the other hand, depends on whether the truth-values of the statement that a certain object of choice possesses or lack that factor are fixed independently of one's beliefs. If simplicity, as some would argue, is in the eyes of the beholder, i.e., a matter of taste, then it is a subjective factor. Objectivity of the essential factors that figure in scientific choices is a prerequisite for the possibility of providing an assessment of the scientific activity. The question whether science is a rational activity should not be raised if it turns out that the essential factors that govern that activity are subjective. According to this general account of scientific rationality, there is a strong relation between objectivity and rationality. Scheffler explicitly refers to that relation:

"A fundamental feature of science is its ideal of objectivity, an ideal that subjects all scientific statements to the test of independent and impartial criteria, recognizing no authority of person in the realm of cognition. The ideal of objectivity is... closely tied to the general notion of rationality, which is theoretically applicable to... the cognitive spheres" [Scheffler, p.1-2].

In the context of the philosophy of science, the dispute between Descriptivism (Historicism), Skepticism, and Prescriptivism can be clarified as follows. Adherents of Descriptivism identify the aims of science with the goal of its practitioners and determine the essentiality of factors in terms of their frequent employment in actual scientific practice. They weaken the concept of aims of science in such a way that it
turns out that the actions of scientists are always justifiable. History of science, according to Descriptivism, can be used to challenge the judgment of philosophical theories of science. The function of philosophical accounts of science is to explain, by postulating the appropriate goals, the sort of actions scientists usually take. Kuhn is a descriptivist in the sense that asking whether the factor of empirical evidence is essential to theory-choice amounts to asking whether scientists usually base their acceptance of theories upon the available evidence. Thus he contends that NS nearly distinguishes science from other enterprises, because it exhausts most of the scientific activity. But Kuhn is a sophisticated descriptivist; for him, scientists may well be mistaken about the functions of their activity, and hence the goals in terms of which their actions are explained need not coincide with those they have in mind. The skeptics about the rationality of science strengthen the methodological rules that govern scientific choices by simply denying the attainability of Scheffler's ideal of objectivity [Bergstrom, pp. 1-11]. Prescriptivism, on the other hand, refrains completely from appealing to history. By adopting a logical and semantic analysis of the basic concepts of science (e.g. confirmation, explanation, anomaly, structure of theory), its adherents end up postulating certain aims for science, and imposing certain normative rules the application of which they consider the sole criterion of scientificity.

Subjectivism, Objectivism and Sociologism

The accounts of science proposed by the Positivists, Feyrabend, and Kuhn, can be viewed as attempts to indicate the extent to which the essential factors that govern scientific choices are objective. Feyrabend, a radical subjectivist, stresses the idiosyncrasy or lack of objectivity of such factors. For him, there is not, and cannot be, any objective criterion
which determines whether scientists are justified in doing whatever they are doing. Scientific actions are arbitrary in that given any rule for such actions, however necessary or fundamental it might appear there are always circumstances in which it is advisable to ignore or to adopt its opposite. But this does mean that Feyrabend believes that science is an irrational activity. Rather, it means that science is an "a-rational" activity. This follows directly from our characterization of scientific rationality. The subjectivity of the essential factors that govern scientific choices, to which Feyrabend is committed, implies that scientific actions are not subject to normative evaluation. [Feyrabend, pp. 75, 123].

Kuhn regards the view that the factors, which determine what scientists do choose, are matters of accident and personal taste as a damaging interpretation of his account [Kuhn (5), p. 260]. Accuracy, scope, and simplicity provide for him the shared basis for reasonable choices. But he argues that those criteria are imprecise; scientists may differ about their application to concrete cases [Kuhn (6), p. 322]. Moreover, when employed together, they repeatedly prove to conflict with one another [Kuhn, Ibid.]. Thus he concludes:

"Choices scientists make between competing theories depend not only on shared criteria -- those my critics call objective -- but also on idiosyncratic factors dependent on individual biography and personality" [Kuhn, Ibid.].

The effect of the latter factors, in Kuhn's account, is to be reduced intersubjectively, by appealing to the assent of the relevant scientific community. In the absence of entirely objective criteria able to dictate the choices of each individual scientist, he argues, we do well to trust the collective
judgement of the group. In that sense, his solution of the problem of scientific rationality is essentially sociological.

Feyerabend's subjectivism and Kuhn's sociologism are to be contrasted with the positivists' objectivism. Neither idiosyncratic nor sociological factors play any essential role in adequate accounts of the nature of scientific activity. Scientific choices are governed by objective factors; this is exactly what makes both the rational practice of science, and the normative evaluation of scientific actions possible. Whether the practitioners of science behave the way they should, i.e., whether they conform to the ideals postulated by the positivists, is an empirical question that is void of philosophical significance.

Contemporary Philosophers of science thus disagree about the legitimate methods of figuring out the factors that are essential to rational scientific acts (descriptivism vs. skepticism vs. prescriptivism), and about the extent to which scientific choices are objective (subjectivism, sociologism, and objectivism).
References


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(1) Here, an appeal is being made to what is known as "The Paradoxes of Material Implication", w"S", "L". Much result from the rather unintuitive assumption made in "Principia Mathematica" to the effect that a conditional statement is true if its antecedent is false. For a detailed discussion of these paradoxes, see: [Pap, pp. 31-32, 273-276].

(2) Notice that the first and last premises are tautologies, meaning that they are logical truths, and that the third premise follows deductively from the first two by "Modus Ponens"; this is sufficient to reduce these premises to the second one, which takes us back to the above single - premise argument.

(3) Notice that the conclusion is equivalent to ‘( _ H₁ v _ H₂ v ... v _ Hₙ )’ , which states that at least one of the elements of the relevant theory is false, without determining which one of them is responsible for the theoretical failure.

(4) According to this distinction, we may express the first objection by saying that anomalous phenomena could at best provide disconfirmatory evidence against the theory, but could never falsify it.

(5) Although I made some considerable changes in form, and some minor adjustments in content, the remaining sections rely basically on conclusions I have reached in my "Scientific Rationality: A Critique of Kuhn's Account of Scientific Practice" (Ph.D. dissertation, University of Wisconsin-Madison, 1982, unpublished).

(6) Clearly, this implies that F is anomalous to the auxiliary assumptions of T, rather than its basic assumptions. (6) Clearly, this implies that F is anomalous to the auxiliary assumptions of T, rather than its basic assumptions.
التدخلات التي تصل نسبةها بحسب دراسة أجراها أحد الباحثين حول مشكلات الإدارة التعليمية إلى 95% من العمل الإداري.

ومن الجدير بالذكر أن دول مجلس التعاون قد بدأت تعمل على تحسين الإدارات الخاصة بالمؤسسات الحكومية وتفعيل عمل المدرسة في عمليات التطوير، بحيث توسع من مشاركة الإدارات المدرسية في اتخاذ القرارات التربوية. كما تعمل على إنشاء مجالس الإدارة ومجالي للآباء والمعلمين وتخويلها بعض الصلاحية لتسير الأمور. وقد دعا الباحث كافة دول المجلس إلى اعتماد اللازم في الإدارات التعليمية، ونحن الخطوات التي اتخذها مملكة البحرين في هذا المجال من خلال اعتمادها نظام المدرسة كوحدة تربوية.