Social Comparison, Identity, and Self-Esteem

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Among the commonly accepted assumptions about "contact" is that ET will come from a society that is much older and more technologically advanced than our own. We are admonished not to view ourselves as special or holding a privileged place in the universe because in the course of doing so we succumb to the "Anti-Copernican Conceit." While we are at least "mediocre," we expect to encounter a civilization far older than our own, perhaps by millions or billions of years. We are warned that ET's science will be like magic to us, or perhaps the relationship between ET and us will be analogous to the relationship between humans and slugs. It is one thing to imagine this in the abstract; it is another thing to experience this profound discrepancy. How many of the scientists who urge us to accept mediocrity would respond with awe, reverence, and humility after being put out of business by researchers from another laboratory?

This raises existential questions, which we can approach from the viewpoint of psychological research. There is a vast empirical literature on the variables associated with positive, can-do attitudes and self-esteem, the extent to which a people feel capable, worthwhile, and good about themselves.

1. Altercasting and the Social Construction of Self. Sociological theories of self stress the importance of self–other interactions. In essence, the way that other people define us, as evidenced in their expectations and reactions, affects our sense of identity or the way that we define ourselves. Such self-definition may be based on class membership, as would be the case for people who are beneficiaries or victims of cultural or racial discrimination.

2. Social Comparison and Frames of Reference. How we feel about ourselves depends upon with whom we compare ourselves. In essence, this is a "size of frog/size of pond" issue. For example, whether or not a dentist feels good about herself may depend on whether she compares herself with more successful physicians or less successful pharmacists.

3. Self-Efficacy, Locus of Control and Spheres of Control, and Proactive Personalities. These three closely related variables describe the extent to which people believe that they have control over their physical, interpersonal, and sociopolitical environments. People who understand what they are doing and believe that they can determine their personal outcomes try harder and succeed more than people who see themselves as ineffective.

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4. Cultural Integrity and the Preservation of Identity. When more technologically advanced societies meet less technologically advanced societies, it is the less technologically advanced societies that are the most likely to change. For those of us who prize diversity and tradition, this could result in a loss of identity.

Given a high rate of information exchange, we should hope that: (1) ET will treat us as equals; (2) we will continue to compare ourselves with one another; (3) we will retain a sense of control over our environments; and (4) although our culture will change, it will retain distinctive elements. However, we could encounter one or more of the following: (1) ET conveys a sense of superiority; (2) we make invid-

ious comparisons between ourselves and ET's "super race," (3) ET somehow limits our choices or we become dependent on advanced technology that we don't really understand; and (4) human culture is no longer distinctive but a cheap imitation ("cargo culture") of what we see as ET's superior culture. Such undesirable conditions could give rise to the following:

1. Learned Helplessness: If ET constrains our choices, solves our problems for us, or gives us access to technology that we don't really understand, we may feel that nothing we do makes much of a difference and then give up trying.

2. Loss of Identity: If we abandon distinctive human culture, we may define ourselves as second-rate members of a larger, somewhat uncomfortable galactic culture.

3. Feelings of Inferiority: Learned helplessness and invidious comparisons with superior beings could lead to crime and to immature, attention-seeking behaviors.

4. Depression: This sometimes follows from learned helplessness, loss of identity, and feelings of inferiority coupled with anger that is displaced inward since it is not safely directed towards the more powerful ET civilization.

The die will be cast within a few decades and, we might expect, strengthened over the ensuing centuries. Enthusiasts write most discussions of post-contact humanity and, indeed, it may be that the discovery that we are not alone in the universe, coupled with the interplay of extraterrestrial and human culture, will yield positive results. Nonetheless, we must consider the psychological "down side" of contact with a vastly superior culture. To do this, we might expand our search for historical prototypes and conduct new studies on the following:

1. Caste Systems: These should be studied to identify those conditions under which castes, if any, live amicably and without adverse psychological consequences.

2. Colonies: Although we do not expect that Earth will be "colonized," there may be certain characteristic elements, for example, laws established and enforced by distant government(s). What positive lessons, if any, can we learn from the colonial experience?

3. Subjective Determinants of Self-Esteem: Many people who, by objective standards, "do not seem to have all that much going for them" do fine. What may we learn from them?

4. Preservation of Identity following Culture Contact: What are some models of post-contact culture preservation and how might these be applied in the wake of contact with an extraterrestrial civilization?

Transformations in Spirituality and Religion

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Religion is one subject that would not only be transformed by contact with advanced extraterrestrial communities, but is already being transformed merely by the prospect of the existence of such communities. Most surveys show that theologians and ministers of religion take a relaxed view of the possibility of extraterrestrials. They do not regard the prospect of contact as threatening to their belief systems. However, they are being dishonest. All the major world religions are strongly geocentric, indeed homocentric. Christianity is particularly vulnerable because of the unique position of Jesus Christ as God incarnate. Christians believe that Christ died specifically to save humankind. He did not die to save "little green men."

This species specificity has already caused discomfort in relation to animal rights, but in the case of extraterrestrial beings, there would arise a very serious problem. For example, it is reasonable to suppose that in advanced communities, genetic engineering would have been used to eliminate strongly criminal and antisocial behavior. In making contact with extraterrestrials, we would most likely be dealing with beings who are far in advance of us not only technologically and scientifically, but also, in the general sense, spiritually. Are we to suppose that humans are theologically favoured over and above these "saintly" beings?

The alternative—that God became incarnate on planet after planet—not only has an air of absurd theatricality to it, it is also a heresy in Catholicism. Even if contact is unsuccessful, the mere possibility of the existence of "saintly" extraterrestrials will eventually force a radical rethinking of Christian theology, and could cause a split in the Church towards support for SETI.

The search for life elsewhere carries a more fundamental implication for religion. Four hundred years ago Bruno was burned at the stake for suggesting the existence of other inhabited planets. At that time, human beings were thought to have been created by God and to occupy a central position in the universe. Today that worldview has largely disappeared. To those who accept that life on Earth arose naturally, the theological situation has dramatically reversed. It is atheists who now prefer to believe that life is the product of a stupendously improbable accident (Jacques Monod was most explicit on this topic). This is because contingency is the opposite of purpose (as Stephen Jay Gould has stressed in support of atheism). Therefore, atheism fits most comfortably with the nonexistence of extraterrestrials and a pointless universe ruled by blind and purposeless forces. By contrast, if life emerges more or less automatically on many Earthlike planets as the result of inherently bio-friendly laws of nature, then descriptions like "design" and "purpose" once more seem appropriate to some (as Christian de Duve has pointed out). Atheists see biological determinism—the view that life is an inevitable consequence of physics and chemistry given suitable conditions—as an attempt to smuggle in the guiding hand of God in the guise of physical law.

Not all atheists are consistent in their thinking on this issue, however. Richard Dawkins, a strong advocate of atheism, seems comfortable with the possibility of extraterrestrial life, even of an advanced nature.

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In my view, atheists can consistently believe in extraterrestrial beings only if they accept the panspermia hypothesis, since that combines the assumption of life forming purely by chance against enormous odds, with its widespread prevalence in the universe. (Note that the converse need not be the case: Fred Hoyle, for example, combines a type of theism with panspermia, but only at the price of divine interventionism.) If life were discovered elsewhere, even at the level of bacteria, establishing a panspermia mechanism would become a key priority for atheists.

Crisis at Mid-Millennium: A Report from the Year 2600

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During the first century of the new millennium, two grand endeavors initiated in the previous century began to bear fruit. The first human settlements were established beyond Earth (but still in the Solar System) and radio signals originating from elsewhere in the galaxy were confirmed as coming from intelligent sources. Although these developments were denounced by some naysayers, by and large the realization that we could live off Earth and that we were not alone served to invigorate the human spirit.

However, during the centuries that immediately followed, progress in both space colonization and understanding the meaning of the radio signals was agonizingly slow. Developing thriving, self-reproducing communities proved much more difficult than expected, and deciphering signals from unknown sources baffled generations of would-be translators. Finally, during the 26th century critical breakthroughs were made in constructing viable biospheres from asteroids, as Tsiolkovsky had originally proposed, and in applying consilient techniques to the new field of comparative exosemiotics.

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That's when the real crisis for humanity hit. Space colonizers were no longer satisfied with spreading just within the Solar System. With the new Tsiolkovsky biospheres, powered by vacuum-energy drives to cruising speeds of upwards of .3c, hundreds of inviting star systems beckoned to multigenerational voyagers. At last interstellar migration was within humanity's reach! Countering this expansive euphoria, however, was sobering news from the exosemioticians. Many of the star systems around us seemed to be already occupied, though whether by intelligent biologs, machines, or cyborgs was in dispute. Furthermore, the impression gained from the sketchy and incomplete translations was that our neighbors would probably not invite physical visits, much less colonial intrusions. Furthermore, analyses of texts from several star systems suggested that their occupants already knew of our existence, but considered us to be so minimally advanced as to be hardly worth their consideration, much less tutorial outreach. Whither now, self-anointed *Homo sapiens*?