



Endogamy and medicine

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Once upon a time two young fish were swimming together when suddenly they came across an old fish who greeted them and said, «Good morning, boys How's the water?» The two young fish kept swimming for a while, until eventually one of them looked at the other and asked, «What the hell is the water?»
David Foster Wallace (2005)

The word endogamy refers to marriage or reproduction between people with common ancestry; that is, between subjects of the same family, lineage or geographical, religious or ethnic group. From a social point of view, endogamous behavior is the rejection of the incorporation of members from outside a particular group.¹ The objective, explicit or not, of endogamy is to avoid heterogeneity. Homogeneity is always more comfortable, more secure. The tribes, with their endogamous behaviors, intended to guarantee their functioning, to remain unchanged, to remain homogeneous, in peace. Group cohesion was the most important thing.

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The union of the group was the great strategy for survival.

The apparent advantages of inbreeding are short-lived and are overshadowed by its enormous disadvantages. Human history abounds with examples of inbreeding groups for the purpose of preserving blood purity. The religious/ideological purpose of maintaining «blood purity» is a biologically very costly undertaking because of the negative consequences on adaptive capacity. Inbred biological systems decrease genetic diversity which limits the evolutionary process. Recessive genetic diseases are a good example of the negative consequences of inbreeding.² Inbreeding plays in favor of extinction. On the contrary, exogamy - with its biological, social and cultural heterogeneity - favors survival. Diversity is the best tool for adaptation.³

In medical groups, as in tribal societies, endogamic behaviors are frequently practiced, promoting unity among members and rejection of outsiders. By refusing the incorporation of new subjects and therefore of new ideas, the development of that group is limited. During specialist training and in professional life, it is advisable to have an exogamic attitude. The experience of exposing ourselves to the scientific community, whether at congresses or during academic stays, even with the publication of scientific articles, helps us to recognize our strengths and weaknesses and thus fosters an atmosphere of humility and aspiration to achieve more far-reaching objectives. If we limit ourselves to thinking that we are intellectually self-sufficient, we not only foster an atmosphere of arrogance but also of inbreeding and stagnation in development. We cannot - nor should we - believe that we are extraordinarily competent or worthy of inordinate recognition just because members of the tribe think so. We must not be tempted to believe our own inventions. We must expose ourselves to the world order so that we can build a better idea of ourselves, our hospitals, our universities, etc., and with that perspective plan and carry out ambitious projects that will lead us down the path of development. If we continue to wallow in our own mythology, we will be in a mediocre, limiting and, naturally,

inbred environment. Self-satisfied pats on the back only lead to more inbreeding.

There are many first-hand examples. When a new element is incorporated there is usually an expectant and defensive attitude in the rest of the group members, without recognizing that this new member will generate a different dynamic (perhaps better or worse) to which the group will have to adapt. That is to say, the new element will represent an adaptive challenge for the group and, with it, its members will have to develop, individually, new adaptive skills to continue being useful to the group. Those who fail to develop these skills will be removed from the group. The question would be: How can we as physicians or medical institutions or societies develop these adaptive skills? Medical knowledge and competencies are not enough to adapt; on the contrary, knowledge can be so rigid that it limits adaptation. The best way to promote these skills is to incorporate external elements that give heterogeneity to the group and to the subjects that form the group. Exogamy is a very important ingredient in the development of subjects, institutions and societies.

An example of exogamy has been experienced by those of us dedicated to respiratory physiology. The exogamous atmosphere of acceptance of external elements and heterogeneity allowed respiratory physiology to be nourished by the talent of pediatric pulmonologists, occupational physicians, sports physicians, anesthesiologists, respiratory therapy graduates, allergists, kinesiologists, epidemiologists, cardiologists, biomedical engineers, physicists, etc., which has allowed us to advance with more solid medical education programs, with a broader scope and with a fabulous opportunity for professional interaction. The same has happened with the Mexican Academy of Sleep Medicine,⁴ initially we were four members and the annual meetings had a minimal scope; now, more than a decade later and thanks to inclusive and exogamic practices, more than 500 people register each year for the international congress of the specialty. From these scientific meetings with heterogeneous participants, new ideas, projects and strategies emerge;

in a word, development emerges and is reaffirmed. It is in diversity that opportunities for biological, social, academic, etc. development are found.

Specialists in training must develop critical thinking based on the heterogeneity of intellectual discussions, they must question the status quo and expose themselves to scientific dissent based on evidence, they must move away from the comfort of inbreeding where we are all as good as our imagination allows. Mexico is the country of inbreeding; we are the best in the world at everything and, at the same time, we lose at everything. As the *vox populi* says: «we played like never before and lost like always». We believe our stories; we create social and pseudo-scientific mythology that is immediately embraced by a large number of people

regardless of their level of schooling. We must encourage our residents, especially pulmonology residents, to break the paradigm of inbreeding and venture to expose themselves to other ways of thinking and doing. Rotations abroad and participation in congresses are a good start to accept and adopt the foreign, the heterogeneous. Those who remain in endogamy are well on the way to scientific extinction.

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