Europeans and Jews Have Shared DNA (big deal)

by Ted Sallis | June 6, 2010

A new paper, **Abraham's Children in the Genome Era: Major Jewish Diaspora Populations Comprise Distinct Genetic Clusters with Shared Middle Eastern Ancestry**, **reviewed here** and **here**, sheds additional light on Jewish genetic origins. This analysis shows that "Jewishness can be identified through genetic analysis" and that a relatively cohesive Jewish group exists, although it can be further broken down into "European" and "Middle Eastern" groupings, both sharing a common, modern Middle Eastern ancestry and "proximity" to contemporary Middle Eastern populations.

The two major Jewish groups, the "European" and "Middle Eastern" Jews, are thought to have split ~ 2,500 years ago. This shows that the Middle Eastern ancestry in "European Jews" is *mostly* modern, historical Middle Eastern genetics and not that of more ancient (i.e., Neolithic) origins. In other words, this ancestry is *subsequent* to the racial differentiation of (modern) Europeans and Middle Easterners, rather than occurring before that differentiation. Of course, Jews are expected to have Neolithic ancestry as well, but the Middle Eastern ancestry that defines them as different from Europeans is of more recent derivation.

With respect to European groups, Jews are most similar to southern Europeans, particularly Italians, which is thought to reflect "large scale southern European conversion and admixture known to have occurred over 2,000 years ago during the formation of the European Jewry." In other words, Atzmon et al find that the major European component in Jewish genetics is southern and not central/eastern, European — suggesting the admixture took place more in the Greco-Roman world of antiquity rather than during the later sojourn of the Ashkenazim in Central and Eastern Europe. The existence of, and extent of, conversion in ancient times is **controversial**, but that controversy is not central to this analysis..

Atzmon et al. accept estimates that Jews made up around 10% of the Roman Empire. However, it is possible that modern Jews are not primarily descended from the entire population of Roman Jews but instead derive from a smaller group of Diaspora Jews who admixed to some extent in the Roman period and then subsequently greatly expanded. This would not require great conversion rates (the identity of that "10%" is open to question – converts? – and the extent of their adherence to Judaism is also open to question).

Of course, the relatively greater similarity of Jews to southern rather than central/eastern Europeans may also to some extent reflect the greater Neolithic ancestry in the southern European groups that is shared by various Jewish groups as one component of their ancestry. (Similarly, Spaniards and mixed race Latin Americans share Iberian ancestry as

a result of the Spanish conquest; but in addition Latinos have other significant genetic ancestries; for example, Amerindian and African.)

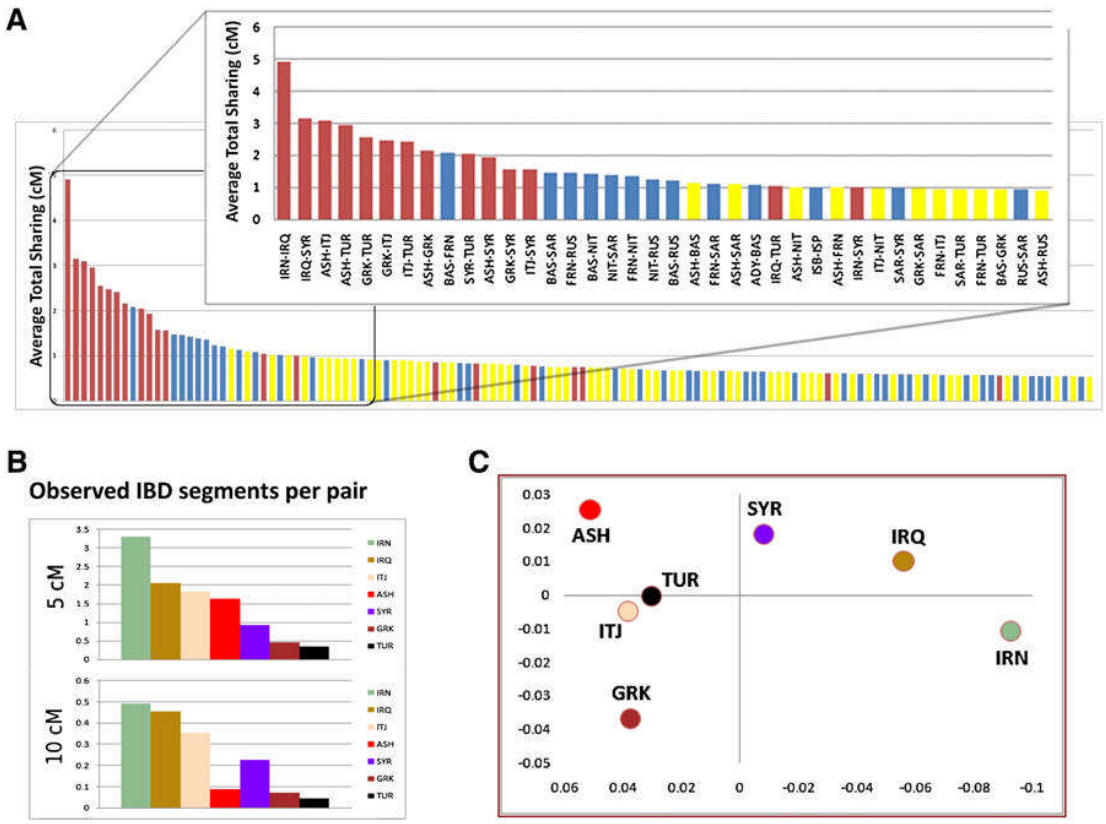
However, these findings do not imply that ***no*** central/eastern European admixture took place; possibly, *some* such admixture is in part responsible for the fair complexions sometimes observed in (Ashkenazi) Jews. However, the findings do suggest that the predominant European influx into the Jewish population occurred in Southern Europe, rather than, for example, Germany or Russia.

A possible North African component (but see comments about structure analysis below) was also observed in Jewish genetics, *possibly* reflecting "Moorish" gene flow during the time in Spain (although this is highly speculative and not well supported by the data).

Extrapolating from modern population genetics to that of putative historical parental populations is fraught with some danger. Nevertheless, these findings do generally coincide with what we know of Jewish history. Jews are a modern Middle Eastern people with some admixture — and that admixture seems predominantly to have occurred in the Roman Empire period. Subsequently, endogamy held greater force. Further, although some "Khazar" admixture is possible, this study once again puts to rest the ludicrous idea that Ashkenazi Jews are merely "converted Khazars with no Middle Eastern ancestry at all."

Charts of genetic distance data show that Jewish groups are close to each other and also close to a variety of European (especially Italian) and Middle Eastern groups. A neighbor-joining tree shows a clear separation of the European and Middle Eastern groups, with Jews in between, consistent with previous findings. However, as **Jost** and others have pointed out, the metrics used to construct such charts are flawed measures of genetic distance. I do not believe comparing populations with significantly different levels of *internal* genetic variation is going to yield the optimal accurate understanding of relative genetic distance.

The data on "shared informative by descent segments" — termed "IBD analysis — are better. Here, the authors look at sharing of similar gene fragments and find that the pairwise sharing distance is very high between Jewish populations. In other words, different Jewish groups share gene sequences that are similar or completely identical. This is a strong demonstration of the common origins and very close genetic connections among these groups. European populations tend to have the highest sharing with other European populations, but the European-European sharing is not as high as that between the various Jewish populations, which are highly genetically integrated indeed.

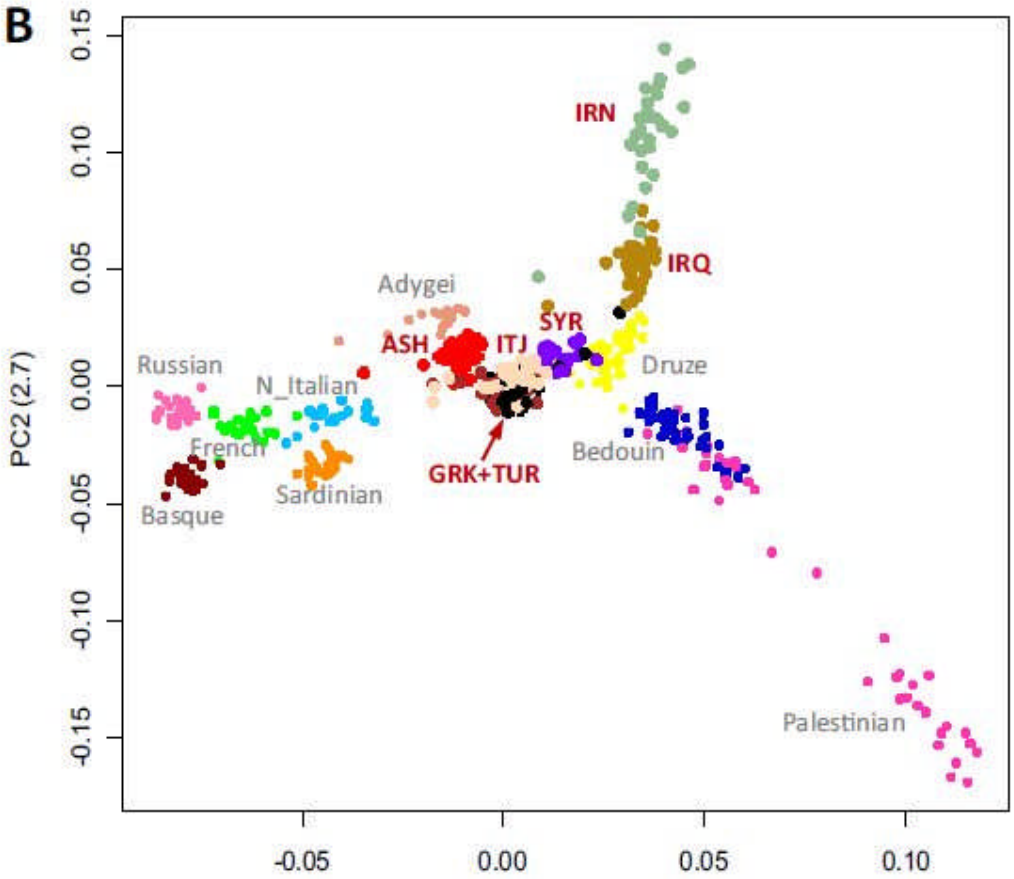


IBD analysis. Part A shows pair-wise comparisons of the degree of sharing of gene sequences identical by descent. The red bars represent comparisons between Jewish groups. 12 of the 13 comparisons with the highest degree of sharing are between Jewish groups. This figure shows that by this measure Ashkenazi Jews (ASH in the figure) are substantially more closely related to other Jewish groups than to any non-Jewish group.

For example, a particularly high level of European sharing (i.e., the length of shared gene fragments) is between French and Basques (2.078) which is significantly lower than that between Ashkenazi and Italian Jews (3.093) or between Ashkenazi and Turkish Jews (2.954). Sharing between Iranian and Iraqi Jews is 4.906, while most European populations give numbers of between 1.0-1.5. Sharing between Middle Eastern groups was not particularly high, Druze-Palestinian was 0.623 and Bedouin-Palestinian was 1.013. Again, the high Jewish numbers are remarkable, and are consistent with a high degree of relatedness.

The figure below shows see a PCA analysis (a methodology that has some flaws but which in this case mirrors previous data and hence is likely correct) that matches fairly well previous studies on Jewish genetics. Jewish groups cluster tightly together in the center. They are midway between the European populations on the left and the Middle/Near Eastern populations on the right (and these two major racial groups *can* be separated). The European group closest to Jews is the Italian group of "North Italians" and "Sardinians" — although these tend to be more distant from the Jews than the Jews

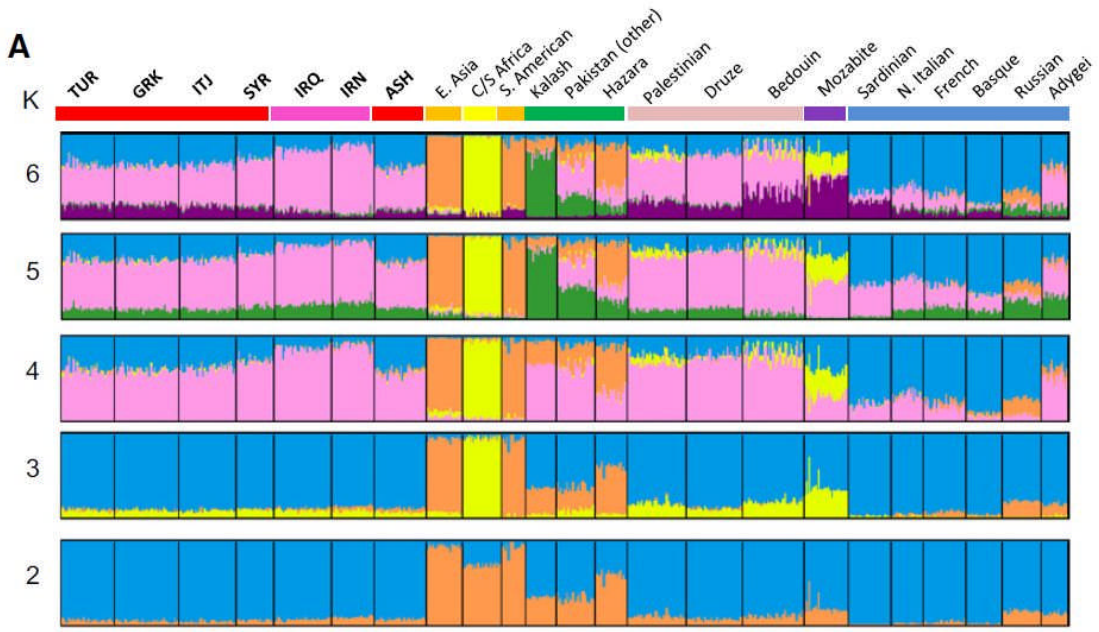
are from each other. The North Italian group looks closer to the "French" cluster than to the Ashkenazi one (never mind the other Jewish types).



PCA analysis

Further, contra some individuals commenting on Steve Sailer's blog, the "Italian" group shown to be relatively closer to Jews are specifically "Northern Italians;" apart from Sardinians no other Italian groups were included in this particular study. That Ashkenazi Jews are more similar to these Italians then they are to French or Russians is not at all surprising, but it doesn't suggest that Jews and North Italians are very similar (much less identical). Italians are expected to be closer to Jews than French or Russians because they are geographically closer and because they are more likely to share Neolithic ancestry. Indeed, if the French or Russians were more closely related to Ashkenazi Jews than the North Italians, it would have been strong evidence of significant admixture taking place in France or Russia respectively.

Even more methodologically solid than PCA is a **structure analysis**, which shows Jewish populations (left side of figure) as being very similar to each other (and, relatively speaking, to Middle Easterners) and distinct from European groups. *Relatively* speaking, north Italians, Sardinians, and French are *more similar* to Jews (including Ashkenazi Jews) than are Russians, despite the long Ashkenazi sojourn in Eastern Europe.



Structure analysis

It should be noted that one cannot precisely go from the color codings on the structure graph to make *definitive* conclusions on what each color means, ancestrally speaking. For example, the **Dienekes blog** makes the following reasonable comments:

> We should probably not interpret the three main visible components ("European" blue, "Mozabite" purple, "Near Eastern" pink) as representing ancestral proportions of European, North African, and Near Eastern elements. For example, Mongoloids have some "purple" while it is unlikely that they have North African admixture; so, while purple has an obvious relationship to Mozabites, it is not a good fit for an ancestral population group. Its substantial presence in the Near East also precludes such an easy interpretation.
>
> Nor can we easily infer the percentage of "European" and "Near Eastern" admixture in Jews. The "Pink" element seems to grade from prominence among Iranian Jews to insignificance among Basques, but what did the original European and Jewish groups look like? Depending on how close they were to the Basque and Iranian Jewish end of the gradient, quite different admixture proportions would arise.

Therefore, the structure should be looked at similarly to the PCA — a qualitative, *relative* comparison. Which populations are more similar to others — that's what's being shown. To have a better understanding of actual ancestry and ancestral proportions will require further, more fine grained analyses.

Thus, in summary, Jews are most likely have a Middle Eastern basic foundation with a significant mix of southern European genes and, possibly, some North African, Central/Eastern European, and "Khazar" "sprinkling" as well. The authors claim an admixture of ~30–60%. However, as noted, more precise determinations of ancestry and ancestral proportions remain to be determined.

Jews and Jewish groups tend to be more genetically similar to each other than to non-Jewish groups, and Ashkenazi Jews, who went through a "severe bottleneck followed by expansion" are particularly highly related to each other — similar to "what one might observe for fifth cousins." In other words, Jews are more similar to each other than to the peoples among which they live — a comment which would be ascribed to "anti-Semitism" if it was not based on the work of Jewish scientists.

This summary doesn't have anything to do with the sociopolitical question: are Jews "White?" but rather just looks at the recent data on Jewish genetics. In my opinion, the ultimate relevance to "politics" is not really Jewish gene frequencies themselves **but Jewish *perceptions* of their uniqueness** and how these perceptions may inform ethnic aggression toward both Europeans and unmixed Middle Easterners like the Palestinians. In the ***LA Times*** article we read, emphasis added:

> The study shows that there is **"clearly a shared genetic common ancestry among geographically diverse populations consistent with oral tradition and culture … and that traces back to the Middle East,"** said geneticist Sarah A. Tishkoff of the University of Pennsylvania, who was not involved in the study. "Jews have assimilated to some extent, but **they clearly retain their common ancestry."**
>
> Said Joe Berkofsky, a spokesman for the **Jewish Federations of North America**: "This finding in a way **underscores what Jewish Federations believe and act upon** through **our central mission, which is to care for and protect Jews around the world**, no matter where they are."

This study has the potential of enhancing the "us vs. them" attitude of Jewish populations and can be viewed as a justification for their pursuit of policies that benefit their ingroup at the expense of the other peoples among which they live. But these social and political implications are independent of the actual science of this study. Atzmon et al. emphasize the importance of culture as well as genes:

> This study demonstrates that the studied Jewish populations represent a series of geographical isolates of clusters **with genetic threads that weave them together.** These threads are observed **as IBD segments that are shared within and between Jewish groups**. Over the past 3000 years, **both the genes and the flow of religious and cultural ideas have** contributed to Jewishness. (Emphasis added.)

Indeed. Two points derive from this. First, it is interesting to contrast the reaction of both "academics" and the mainstream media to different types of population genetics data. When it comes to Jewish populations and the relatively small genetic distance

separating Jews from both Europeans and Middle Easterners, "academics" (particularly Jewish scientists) and the media (as well as Jewish ethnic organizations) have no problem in stressing the genetic uniqueness of Jews and that this uniqueness stamps them as a separate and distinct biological/ethnic entity. However, when it comes to the objectively larger genetic gulf that separates Europeans from, say, Africans or Asians, why, that's only an "illusion," there is "no biological basis for race," "we are all the same," and "there is more genetic variation within groups than between them." The contrast in attitude could not be greater.

Second, contra to some commenting at the ***TOO* blog**, the similarities among the major Jewish populations, underscored by the IBD analysis, are sufficient to label Israel as an ethnic state. It's not an ethnostate, since there is a large Arab population, but it is a state that defends the ethnic interests of a distinct, biologically defined group. The presence of minorities of Ethiopian, Chinese, or Indian "Jews" should not distract from the fact that the majority of Israel's population, certainly its Jewish population, is tied together genetically, as demonstrated by their shared IBD segments. Further, Kevin MacDonald writes:

> In any case, there certainly were elaborate cultural barriers against intermarriage throughout very long stretches of Jewish history, resulting in genetically different populations with substantially different genetic interests.

Here, he is clearly talking about Jews and non-Jews as being the "genetically different populations with substantially different genetic interests." The IBD data, perhaps most relevant to ethnic genetic interests (as we are talking about gene segments shared or not shared between individuals/populations) show that this indeed is the case.

What about the relevance of these findings to Salter's Ethnic Genetic Interests (EGI) idea? If we look at the actual data, especially the gene-sharing IBD analysis, we can see that Jewish populations are very much related to each other and are indeed more similar to each other than to the groups among which they live. So, they do have an EGI interest in Jewish-specific ingroup activism. What about admixture? What about genetic similarities to Europeans?

Agreed that Jews have EGI to Europeans as well. It is uncertain whether they can pursue their specific group interests while not harming European interests even though that would be the optimal outcome. Is it fixed in stone that pro-Jewish policies must always be anti-European? Can Jews be both pro-Jewish and pro-European, therefore maximizing EGI? Or do they have to sacrifice the EGI they have in Europeans to preserve the more concentrated EGI in fellow Jews? Granted, there are a lot more Europeans than Jews, but if genetic structure is important in EGI, and I believe it is, then, for a Jew, a fellow Jew is much, much more genetically valuable than a European. Consider once again the IBD and Structure data.

However, even if "Jewish EGI" in theory favors European survival, this doesn't mean Jews will behave in this manner. For years, individuals both critical and supportive of

Salter's EGI idea have exhibited a cognitive deficiency about "prescriptive" vs. "descriptive." Salter's theory tells us how people should behave if they want to act adaptively — prescriptive. How they actually behave — descriptive — is another matter entirely. Certainly, Europeans are behaving maladaptively in opening their borders to massive non-European immigration.

Jews may also behave maladaptively at times. Perhaps the IBD data supports current Jewish behavior. Maybe not. But Europeans had better wake up to their own EGI regardless of what the Jews decide about theirs.

URL: http://www.theoccidentalobserver.net/authors/Sallis-Jewish-Genetics.html