Why Regularity?

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Hi,

The lier paradox arose from our definition of M as either a lier or a truth teller, in the following manner.

M is a lier<−>M:As by M −> s is ~true.
M is a truth teller<−>M:As by M −> s is true.

A for "every" and s means 'statement".

Now, if s= " I always say the truth " , then what we will have is a tautology. were M exists but we don't know weather M is a lier or a truth teller(the truth teller non paradox), this means that if we have further information about M, then this further information will decide weather M is a truth teller or a lier!

Now,if s=" I never say the truth ", here we have a contradiction about M, is M a lier or a truth teller, since for such s, M is a lier <−> M is a truth teller, A contradiction (The lier paradox), therefore M doesn't exist.

Now by analogy with sets M={s|s!es} raise the lier paradox, while M={s|ses} raise the truth teller non paradox. Then Why regularity?

It appears to me that when we state that "s is not in s" , then we are making a LIE. But A theory which has the axiom of regularity appears consistent because such theory would be like The man who always lies. This man is a man that we can work with in a consistent manner, we simply can know the truth value from his statements by simply reversing them. That's why ZFC has some consistency. But yet it couldn't have a universe, because every set in it is a LIE, and the set of all lies do not exist, since it is contradictive.

It appears to me , in order to derive a more consistent set theory, we should adopt exactly the opposite way, i.e. an axiom of Irregularity.

Let us try build the following set theory:−

1) Axiom of Extentiality.

2) Axiom of Irregularity: Ax xex
3) Axiom of Uniqueness: EU,Ay,Az (zey <−> z=y) −> y=U

There exist a unique set U that for every y, every z, zey <−> z=y , then y=U.

4) Axiom of Pairing.
5) Axiom of Union.
6) Axiom of Separation.
7) Axiom of Replacement.
8) Axiom of Power set.
9) Axiom of Choice.

All axioms except 2) and 3) are as in ZFC.

Now what is against this theory. This theory has a universe, and it is in itself. And avoids Russell's paradox all together, and I assume that even the paradoxes of the ordinal of all ordinals, and the cardinality of all cardinals, are avoided in this theory.

There is even no need to change the ordinary set notation of this theory.

For example the pairing of x and y according to this theory is {x,y,{x,y}} , but for short there is no need to mention the member {x,y}, we can write it as {x,y} since it is un